NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. V. BOSTON, MAY, 1853. NO. 5.

RAYNOLDS & NOURSE, Proprietors. Office....Quincy Hall. SIMON BROWN, Editor. FRED'K HOLBROOK, HENRY F. FRENCH, } Associate Editors.

CALENDAR FOR MAY.

Sweet May—

For thee, the fragrant zephyrs blow,
For thee descends the sunny shower;
The rills in softer murmurs flow
And brighter blossoms gem the bower.

So sang Darwin, and scarcely a poet but praises, or describes, or alludes to the beauties of this month. He sings it as the offspring of the solar beams, and invites it to approach and receive the greetings of the elemental beings.

The year awakes from her winter nap in April; but she only gets half awake, and does not seem to feel certain whether it ought to be *winter* or *spring!* So she gives us a touch of both seasons —now fierce and cold winds, and then balmy airs; scowling clouds and soft sunshine; now hail and snow, then soft, pattering rains, washing the face of the fields, and bringing out a bright color here and there in her new dress.

But May unfolds unnumbered charms. She spreads the earth with green, and dots it with flowers of varied hue; fills the trees and shrubs with bursting buds and expanding blossoms, and loads the air with fragrance. All is activity and love in lovely May! Fair maidens and bounding youth skim the hills, the margin of the winding brooks, and sheltered nooks in the wood, for early flowers. As the expanding flowers, so expand their beating hearts, and knit in holy love, they ripen together here for a still lovelier May-Day in the skies!

The elms and maples that for a week or two have held their pendent tassels, and invited whole colonies of bees to taste their sweets, now scatter innumerable seeds, and go on with their work of growth. The robin is here, and the blue-bird, the early swallow, the wren, the warbling sparrow, chattering black-bird, and lark, and occasionally

* * * "all burst forth in choral minstrelsy,
As if one quick and sudden gale had swept
An hundred airy harps."

But May is too busy a month to afford us much time in a description of its beauties. It is as crowded with active duties for the husbandman, as it is active in vegetable and animal life. Lagging will not answer now. Your plans being laid, and your implements in order, you go to work with good nature, with a stout heart and willing hands, and every stroke will tell.

Grafting.—There are thousands of old orchards still remaining in New England, which would pay well for being newly worked over by plowing, manuring, pruning, scraping and grafting. If there is a healthy shell of four inches thickness, we consider the tree worth this labor. Many trees where the heart-wood is entirely gone, bear plentifully through many successive years. Fruit may be obtained from old trees in a much less time than it can be from young ones; beside, they are often old friends, have long served us well, and form a pleasant part of the landscape. Do not, then, cut down the old trees. At least, grafted and well tended, they will produce food for your cattle and swine more cheaply than you can produce potatoes, corn or hay.

In grafting, do not cut off all the limbs the first year; in so doing you check its natural forces and induce an unhealthy state. Beside, the suitable season for grafting is not the best time for pruning. Therefore cut off only the limbs to be grafted, and leave the others to shelter the young scions through the summer, and prune gradually afterwards.

The Garden.—Examine, carefully, all the trees, shrubs, and plants in the garden, to see that nothing exists to obstruct their growth. Insects may have been sheltered on them through the winter which can now easily be destroyed; or moss may have gathered which must be rubbed off, and the trees washed with soft soap and water.

Sow an abundance of seed for kitchen vegetables; beets, parsnips, carrots, early turnips, lettuce, radish, cabbage, cauliflower, broccoli, also melons of various kinds, and if not done in April, set raspberries, currants, gooseberries and strawber-

ries. All these fruits are cheaper and more wholesome in hot weather than a principal meat diet. Flesh is stimulating, while fruits are sufficiently nutritious, and are cooling under our hot summer suns.

Screen the garden from the northeast and northwest winds by rows or clumps of pines and cedars, or other evergreens, interspersed with the maple, birch, beech, or oak. This will require no cash outlay to the farmer, and a little done every year will wonderfully improve and beautify the homestead.

PASTURES.—Unless these are extensive and varied, that is hilly, and containing low, moist places, affording very early feed, it is a good plan to keep the cattle from them until the first of June; the grass then becomes more vigorous—the roots gain a firmer hold, and consequently continue stronger through the season. Pastures fed close early in the season are worth but little during the dry, hot months.

SOILING CATTLE.—Sow southern corn this month to be cut green for early fodder. An half acre devoted to this purpose will help out your pastures wonderfully—and the increased product of your cows more than pay cost of labor. Then continue sowing, weekly, until July, and you will be able to keep up a large flow of milk.

THE CORN CROP.—Remember the old adage,

"When oaks look gray,
Plant night and day."

Plow deep, pulverize and manure well, and then let it be wet or dry, you will rarely fail of obtaining a good crop of corn,—one of the most substantial and profitable crops of New England. We have retained, in our practice, many of the English modes of cultivation, and among others that of *hilling corn*, and perhaps all the hoed crops. In a climate where moisture is redundant, this practice may prove beneficial; but under our burning suns of July and August, and with the usual drouth attending those months, the practice is evidently a bad one. Let the cultivation be deep, mellow, and level, and we presume the crop will do better on a level cultivation.

Corn is valuable for household purposes, and for every sort of stock; is suited to our climate and most of our soils, and if accurate accounts are kept, will be found a *profitable crop*. We hope more attention will be given it.

ASPARAGUS.—Obtain one or two hundred roots and set them in a trench a foot wide and deep, and a foot apart in the trench. Spread the roots out in their natural position, at the distance of one foot apart on each side of the trench, making two rows in one trench, or 100 plants in 50 feet. This is the plan recommended by Mr. CUTTER, of Pelham, in volume 4 of the *Monthly Farmer*, which may be referred to for a more particular description.

The plant is wholesome, easily cultivated, and a profitable market vegetable.

MAY is an important month to the farmer, as much of his success for the year depends on his operations now. Most of the crops he cultivates must be put in, and their value will depend considerably upon the time and manner of doing it. He that would get the best return for the least labor, must work *seasonably* and *systematically*, and with such thoroughness as to leave nothing undone necessary to secure a good crop.

For the New England Farmer.

PLOWING.

BY A. G. COMINGS.

Who knows how, and when, to plow?

To understand the one simple matter of plowing, is one of the great things necessary to good farming. If there is among all your intelligent readers, a man to be found who knows all about plowing, he ought to write a book for the instruction of the rest of mankind.

In my intercourse with farmers it has become very evident to me that there is no settled and understood theory of plowing. Concerning the time and depth of plowing, every man has his ideas; and there is no common understanding of any settled principle of action, for different soils and the soils of different altitudes, and different inclinations, and different exposures.

There are "a thousand things" to be known about this one important part of the farmer's work.

The different kinds of soil, from the lightest to the heaviest, will vary the necessary work of the plowman. The man who would plow stiff, clay soils, in the same precise manner that he would light, sandy soils, is the man who will perhaps live to learn to do differently.

Those who write about plowing, if I am not much mistaken, take into view too few items. We see but little from the pens of the best writers, except upon the questions of shallow or deep plowing, fall or spring plowing, sod plowing, stubble plowing, subsoil plowing, &c.

If we take up the single subject of fall-plowing, the whole matter requires that we consider the kind of soil, the present state of the soil, how it will be exposed to the frosts of winter, how it will be effected by washing in the spring, how it may be exposed to the action of wintry winds; and in addition to this the farmer is to consider whether the turf will be more readily decomposed and the soil more readily and suitably prepared for use the next season, for the production of the peculiar crop which is desired.

If we are considering spring-plowing, the subject involves a great variety of peculiar points, as to the dryness and warmth of the ground before plowing, how deep each particular piece of ground should at the time be plowed, how the furrows for each different piece should be turned, what kind of a plow will do the work best, what will do it easiest, what will do it quickest, and what plow, considering these points together, should be used; and how should the plowman hold the plow, to secure the best performance in the shortest time and with most ease to himself and his team.

If we are considering the depth of plowing, very many things are to be considered, and ought to be understood. There must be considered, the state of the soil and the amount of manure to be put upon it for an immediate crop, for the production of what may be necessary the first year; the depth necessary for the continued fertility of the soil, the depth necessary for ground much exposed to drought, for land much exposed to wet, for side-hills where heavy rains are apt to wash them, for long-cultivated land which has never been plowed deep, and for land which has never befcre been plowed. Besides, there is the question between the action of the Subsoil Plow and the Michigan Double Plow.

If we inquire whether furrows should be laid flat and smooth, it must be considered whether the peculiar soil or the peculiar season of the year when the peculiar soil is plowed has any bearing on the question.

All these things, and very many others, have a relation to the subject of plowing.

There are certain fixed laws in nature, which the well-instructed plowman must understand. These are not to be regarded as either accidental or providential. They do not *happen*. They are as naturally to be expected as the moon's changes are. They should therefore be considered and understood.

There are also probabilities to be anticipated by the farmer. These relate to the heat and cold of the seasons—to wet and dry—and to other circumstances which we may call Providential probabilities.

To know how, and when, to plow, requires that a man should be a wise man, a man of understanding, and a real philosopher. Agriculture calls for the services of such men.

Only one out of many among men are acquainted with the reasons in favor of deep plowing. Few consider the difference of soils, and the location and situation of soils, as regards the subject of fall-plowing.

I go to a farmer, and ask his opinion in reference to the practice of fall plowing. He is greatly in favor of it, and is eloquent in advocating the practice. I go to another and find him strongly opposed to the practice. Both are thriving farmers; and each tells me that he has proved his theory by years of practice, in which he has tried both ways. But this does not settle the question. I find that the peculiarities of the soil, and the other circumstances which have an influence upon different soils, quite explain the matter. It is not proven that the practice is useful under all circumstances, nor useless under all.

Farmers have got very much to learn, and whoever understands this matter fully, if any man does, owes to the public something which will open our blind eyes.

If any man will write a book on plowing, and faithfully instruct us on this matter of so much consequence to farmers, I will be glad, if I am alive to see it forth coming, to do all in my power to gain it the support which is due to it.

If there was something like the great and notable hen-fever, as touching the many important things about plowing, the books would come out, "thick as blackberries in harvest time." We should then perhaps hear of plows that could go alone, and do fine work, if they could not talk. But the men who understand plowing are not the men for such fancy work.

It does really appear to me that the Editor of the *New England Farmer* made a beginning in the History of the Plow, at the late mass meeting, at Concord, which is worthy of being followed by the History and Philosophy of Plowing. Every young farmer wants to know more about plowing.

Mason, N. H.

MILLET.

In the April number of the monthly *Farmer* we gave a short paragraph on the subject of *millet*, to be cut green and dried for fodder. Since that time inquiries have been made which seem to call for more particulars in relation to it as a hay crop.

It has been considerably cultivated in this region by some of the milk producers who pronounce it an excellent article for milch cows and oxen. Their practice has been to sow it,—*eight quarts of seed to the acre*,—from the 10th to the 20th of June. In the accounts quoted below, the quantity of seed used is much larger than is used in this vicinity, and it seems to us more than is necessary. The seed should be sown with great care, sowing both ways across the field, in order to touch all the ground and cover it evenly. The cultivator must exercise his own judgment in regard to the time of cutting.

The seed is highly relished by birds and fowls, is nutritious, and in some countries is made into bread. We copy two or three paragraphs in relation to the cultivation and product of millet from *Fessenden's Complete Farmer*, published by C. M. Saxton, N. Y.

"Mr. Ruder, of Pennsylvania, sowed one peck to the acre in May, and put in four acres; cut it in the middle of August, and dried it in the sun two or three days. He had seventy-five bushels of seed to the acre, and six tons of fodder on four acres. His cattle relished it very well."

It is stated in the *Plough Boy*, that millet sowed in June, on good ground, will give from two to four tons of fodder, and from twenty to thirty bushels of seed, equal to corn for fattening hogs. It is cultivated in Pennsylvania and Maryland as a fodder crop, and cut in the milk. It is preferred in the winter by neat cattle to clover.

A crop of fodder can be produced if sowed as late as the last of July.

John Hare Powell, Esq., of Pennsylvania, has given us the following observations on the culture of this crop:

'I have made many experiments on various soils, and at different seasons, to ascertain the product as well as the properties of millet. Upon light land, in good condition, it succeeds well. It requires in all cases fine tilth, and as much strength of soil as is necessary to produce heavy oats. I have not seen either in Europe or America, any green crop which so largely rewards accurate tillage and plentiful supplies of manure, as the species of millet usually grown in this and the adjacent counties. I have sown it from the 1st of May to the 20th of June, and have invariably obtained more fodder than could have been had from any

grass under similar circumstances. On the 1st of May, five bushels of millet seed were sown on four acres; on the fifth of July the crop was hauled, and estimated at four tons per acre. I have obtained this season forty tons from sixteen acres, of which four only had been manured; the remainder could not have borne a good wheat crop. One of the loads was weighed; an account of them was regularly kept; their size was made as nearly equal as possible. I have generally used a large quantity of seed, as not more than two-thirds of that which is usually sown will vegetate. Whilst my own oxen consumed millet in its green state, they performed their work with more strength and vigor than they had done before, or have shown since, except when fed with grain. My cattle, of all ages, prefer it to beth red, and the best white clover, meadow, or timothy hay."

The quantity of seed used for seeding and obtained as a crop, is set extravagantly high, in the quotations above. We are assured by those having long experience in the cultivation of millet, that *eight* quarts is seed enough for an acre.

WELCOME SPRING.

The *Hallowell Gazette*, after some happy reflections upon the delightful season of Spring, makes the following just and applicable remarks.

When we hear a farmer tell about selling his farm, with the intention of changing his business, we are always reminded of Esau. There are some men who seem to have been born for an adventurous life of trade; who seem to enjoy its fluctuations and uncertainties, and consider it sport to run desperate ventures; who can descend from a palace to a hovel, or ascend from a hovel to a palace, with equal indifference to their fate. Let them enjoy it—let them be princes to-day and paupers to-morrow if they will, but, reader, if you are the owner of a farm, sow this spring as in times past your seed; and when the autumn shall come you shall reap your harvest, whatever may be the condition of stocks or the price of cotton, or whether the store of the merchant shall be in his possession or in the hands of his creditors.

Then let us all, with contented mind and hopeful anticipations, hail the approach of spring, remembering that

"Contentment walks
The sunny glades, and feels an inward bliss
Spring o'er his mind, beyond the power o kings
To purchase. Pure serenity apace
Induces thought and contemplation still
By swift degrees the love of Nature works,
And warms the bosom; till at last sublimed
To rapture and enthusiastic heat,
We feel the present Deity, and taste
The joy of God to see a happy world!"

For the New England Farmer.

BONE WENS.

Mr. Editor:—I noticed an inquiry for a cure of bone wens; I have a recipe which I have used, and has effected a cure. Take equal parts of indigo dissolved in wine, and soft soap; apply it quite warm, with a swab, twice or three times a day. This I have tried on a calf six months old, and on a two years old, and effected a cure.

Hanover, 1853. J. Brooks.

SPECIAL MANURES.

It is said that the employment of manures which are rich in nitrogen not only causes a large crop, but also produces a gain which is much richer in gluten. The experiments which have hitherto been chiefly relied upon in proof of this result are those of Hermbstadt. On ten patches each 100 square feet, of the same soil, (a sandy loam,) manured in equal weights of different manures in the dry state, he sowed equal quantities, (½ lb.) of the same wheat,—collected, weighed and analysed the produce. His results are represented in the folfowing table:

Return.	Ox Blood, 14 fold.	Night Soil, 14 fold.	Sheep's Dung, 12 fold.	Goat's Dung, 12 fold.	Human Urine, 12 fold.	Horse Dung, 10 fold.	Pigeon Dung, 9 fold.	Cow Dung, 7 fold.	Vege'le Manure 5 fold.	Unmanured, 3 fold.
Water	4-3	4-2	4-2	4-3	4-2	4-3	4-3	4-2	4-2	4-2
Gluten	34-2	33-9	32-9	33-9	35-1	13-7	12-2	13-0	9-6	9-9
Albumen	1-0	1-3	1-3	1-3	1-4	1-1	0-9	1-0	0-8	0-7
Starch	41-3	41-4	43-8	43-4	39-9	61-6	63-2	63-3	65-9	66-6
Sugar	1-9	1-6	1-5	1-5	1-4	1-6	1-9	1-9	1-9	1-9
Gum	1-9	1-1	1-0	1-5	1-0	1-0	1-9	1-0	1-9	1-0
Fatty Oil	0-9	0-6	0-7	0-9	0-9	0-6	0-5	0-5	0-3	0-3
Soluble Phosphates, &c.	0-5	1-4	1-3	1-3	1-0	0-4	0-5	0-5	0-3	0-3
Husk and Bran	13-9	14-0	13-8	14-3	14-2	14 0	14-0	14-9	14-0	14-0
	99-8	99-7	99-7	99-7	99-7	99-6	99-8	99-7	99-8	99-7

Pear Trees.—We passed an hour in the nursery grounds of Col. Wilder, of Dorchester, on Friday, and came to the conclusion that if any of our readers are in want of *pear trees*, they can find them there of all varieties, on pear and quince stocks, with prices varying according to the age and perfection of the tree. It is worth a journey there merely to look at his trees.

☞ Mr. Levi Burt, nurseryman at Walpole, N. H., writes us that after 16 years experience in raising, budding and grafting fruit trees, he is satisfied that to get good healthy pear trees, that will last and be productive, it is necessary to *graft on pear stock*.

For the New England Farmer.

HOW CAN CHEMISTRY BENEFIT THE FARMER?

BY HENRY F. FRENCH.

The novelist Cooper, somewhere says that "men at thirty put on their *interested spectacles*, and seldom afterwards see anything very *lovely*, that is not, at the same time, very *lucrative!*"

Farmers are obliged, at the North, to keep on their interested spectacles, and look through them pretty sharply too, to discern clearly what is *show* and what is *substance*. They need all the aid that knowledge can give them, and cannot afford to be often deceived. We cannot expect to live long enough to plant and gather more than some forty or fifty annual crops, and a few years of error make a sad discount on the good results of our life, whether it be in field-culture or *heart* culture.

All knowledge eventually becomes *practical*. The unaccountable turning of the needle to the pole, the expansive power of heat upon water and air, and the instantaneous passage of electricity, are as much *practical, hard working* facts, as are our horses and oxen. Chemistry, if it has not discovered the *philosopher's stone*, which shall turn all it touches to gold, nor the *universal solvent*, nor the secret of *renewing youth*, and rendering it perpetual, has done *far better* for mankind, by analyzing the *stones on our farms*, teaching how to dissolve them, and convert their elements into food for the hungry.

The *chemist* now makes great promises, as did the *alchemist* of old. His laboratory is a mystery, and his technical language unintelligible, to most working men—as much so now as centuries ago. And sad though it be, we must believe that learned men will still be found, base enough to deceive their fellow-men, under the pretence of benefiting them, for their own advantage. When Aaron cast down his rod before Pharaoh, and it became a serpent, the magicians and sorcerers by their enchantments did the same, and caused their rods also to become serpents, and from that time to this, the contest between truth and error has been so evenly matched, that the world has been, like poor Pharaoh, sorely puzzled always, to discern the difference.

The science of chemistry, though full of mystery and difficulty, has already established certain great, tangible, practical principles, of infinite value to the agriculturist. It has disclosed to us, among the rest, that plants, which were looked upon formerly as the results of incomprehensible accidents, *are made of something*, and that the same kind of plant is formed substantially always of *the same materials*. *It takes the plant to pieces*, and weighs and measures its constituent parts, and tells us *how much* of each it contains, and so we learn that the plant cannot be formed, unless somehow the elements of which it consists are furnished.

And next, chemistry looks at our soil, takes *that* to pieces, and tells us of what it is composed; and chemistry, too, makes a pretty good *guess* at least, of what the *air* supplies to the plant, and so informs us, whether the plant, which we desire to raise on our land, can find enough to eat and drink, and be clothed withal, with leaves and flowers and fruit, within its reach.

The *principles* being thus settled, and being so simple that a child may comprehend them, next comes the *practical application* of them.

Farmers, like "the rest of mankind," have considerable human nature in them! They are pleased with new fancies, and *nearly* as likely, though I think not quite, to be humbugged, as their neighbors. The *Merino sheep fever*, when a handsome buck brought two thousand dollars, and the *Multicaulis* fever, attacked *farmers*, as well as others!

The market is full of scientific *manures*, as well as of scientific principles. Farmers are assured, in advertisements, that specific manures may be purchased, so valuable and cheap, that stable manure would not be worth hauling a mile, if to be had for nothing! and other advertisements assure them, that for a few dollars, analyses of their soils will be furnished with infallible directions, for the treatment of their land.

Now it is well known, that gross frauds have already been practised, in the sale of *adulterated guano*. No farmer can distinguish pure Peruvian guano, from a mixture readily formed, which shall be but *one-third* guano. *Superphosphate of lime* is, perhaps, the best *scientific* preparation for manure yet discovered, but nothing short of a chemical analysis can detect the vilest imposition in its manufacture. The soil *can be* analyzed accurately, but all chemists agree, that the process is one of great care, and nicety, requiring much skill and practice and time, and that a charge of *twenty dollars* is reasonable for a single process, properly conducted. The farmer who procures an analysis, has of himself no means of knowing whether the result given him is accurate, whether it is a mere approximation to the truth, or a mere *guess*.

The only security, then, that the farmer has against imposition, the only security that true science has against quackery and false pretensions, is in the *personal character* of those engaged in the departments in question.

Employ a *chemist*, as you employ a *physician*, not only because he has skill, but because he has a high reputation for integrity and honor. Purchase costly fertilizers, as you would purchase valuable jewels, only of dealers, whose known character places them above suspicion of fraud. The different results of experiments with specific manures arise probably, as often from differences in the substances used, as in the soil itself.

The true value of the science of chemistry will never be appreciated, until more of system is connected with its application to the use of the farmer. I have thought that in Massachusetts, a State advanced far beyond its neighbors in agricultural improvements, that a system like the following might, ere long, be adopted. Let there be a chemist for each county, residing there, and acting under the direction of the County Society, or the Board of Agriculture. Let him be a practical chemist and a practical farmer. Let him make careful analyses of the various classes of soil which compose his county—of the *pine plain*—of the *clay*—of the *alluvial* soil by the rivers—of the *hard pan* soil of the hills. A decent knowledge of the geological formation of the country about him, a series of careful observations as to the *mechanical* condition of the soil, with the results of his researches in his laboratory, might, it would seem, give him such a general knowledge of the requirements of each class of soil, that,

with the proper information derived from the occupant, by personal inquiry, he might be soon as competent to give advice as to the culture of the land about him, as the doctor to prescribe for the sick, or the lawyer to advise his client. No physician would dare prescribe for a dangerous disease, upon the description of it given by an unskilful informant, and no agriculturist, however *learned*, can give much valuable advice about the culture of afield, from information derived through *unlearned* sources.

An analysis of a pound of earth, from a farm, would perhaps give a somewhat better idea to a chemist of its requirements for fertility, than would the examination of the paring of a finger-nail of a patient whom he never saw, give to the physician, of the physical ills of the sufferer. But as a general thing, it would seem, that the specimen sent, must be quite too small, and quite too uncertain, to be the means of much valuable information.

No man can take from a cultivated field a pound of earth, and feel any confidence that it fairly represents the condition of the whole, while our chemist of the county, who had analyzed perhaps twenty specimens of soil in the neighborhood, of similar character and position, would be able to judge, without a new experiment, with great accuracy, by a superficial examination merely, what must be its chemical constituents.

I repeat what I have often said, that I have the fullest faith in the advantages to be derived by the farmer, from the aid of chemistry, and it is, because I desire that all men should charge their disappointments, in attempting to avail themselves of her services, to the right account, and not always to the *science* itself, that I have ventured to make the foregoing suggestions. H. F. F.

Exeter, N. H., April 6, 1853.

For the New England Farmer.

HEDGES.

Mr. Editor:—I propose to write a few lines in answer to your correspondent from Hollis, on the subject of the hedges, that will stop cattle. Almost any kind of tree properly managed will make a fence, but the tree should be adapted to the land where it is to be grown. In looking about for some tree for a hedge, on poor pine plain land, I asked myself what tree would grow on this kind of land and be the least objectionable, and with the least care and expense, and have come to the conclusion that the White Birch and the White Pine are the best. These trees will grow and flourish without cultivation almost anywhere, and may be had for the taking up; or the seed of either may be easily obtained, and sowed where they are wanted to grow. The seed of the birch can be gathered in November, and the pine in August or September.

There are hundreds of miles of fence on the lines of railroads, where hedges might be raised much cheaper than rail or board fence can be built, and if the older roads had been hedged when they were first built, the hedge would before this time have been large enough to turn cattle, and the pine trees in many places kept the snow from drifting. I think the river birch, or the canoe birch, would be very suitable for river intervale on meadows, where rail fence is liable to be taken up by ice and carried off by freshets; the seed of both these trees should be gathered in June or July, and both kinds are easy to cultivate. I set 14 rods of white birch hedge last week, at an expense of less than one dollar, the trees averaging 2 feet high, and got them in in good order; so you see it will not cost me much to try the experiment. The Silver or River Maple would grow on good land the quickest of any tree that I ever cultivated, and may be easily obtained by seed or seedling trees. The seed may be gathered in June or July, and sowed the same year. B. F. Cutter.

Pelham, N. H., April 4, 1853.

EMERY'S REAPING AND MOWING MACHINE COMBINED.

We lay before our readers this new labor-saving machine, in order that it may be seen and examined, before the busy season arrives, when it may be called into use.

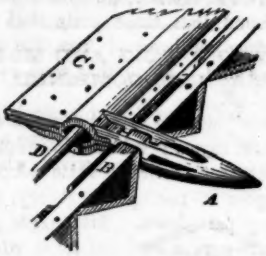
As will readily be seen, it is provided with a driver's seat and wheels, independent of the machine itself, but attached by hinges in such a manner as to allow an easy action and adjustment, while this method does away entirely with all the side draft.

The machine itself is provided with a large main wheel, being about forty inches diameter and eight inches face, with the necessary projections on its surface. This wheel is cast with an internal gearing at one side of the spokes, the teeth of which are protected from dirt and strengthened by a deep flange of nearly three inches. The main frame is suspended from this wheel, by means of adjustable pinion boxes, the boxes being hung inside of hangers attached to the frame itself. By applying a kind of wrench to the box, (which projects far enough beyond the hangers, and is made square,) it may be turned; thus by the action of its teeth on the corresponding teeth on the hanger, the frame itself is raised or lowered to any desired point, where it is confined by a simple iron key.

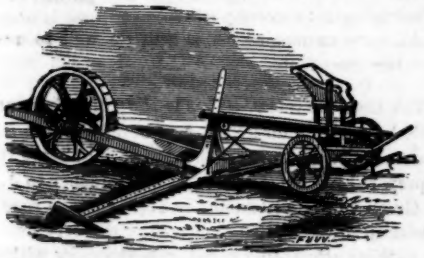
A small pinion is placed inside of this large wheel at the forward part, and its shaft confined to the under side of the frame itself, this shaft extending far enough outside to receive an eccentric close up to the frame.

The motion of the cutters is obtained by eccentric straps and connecting rod, passing along the outside of the frame to the fore end, where it connects with an elbow or knee iron, as shown at A, in Fig. 1. This elbow extends its other end through to the front of the main frame, as seen at B, and is confined in position by a heavy substantial bed-plate of iron. The end of the cutter bar itself, connecting with the elbow at B, has its motion simply and directly from the main wheel, all

parts working constantly in line, giving a stroke of eight inches by the eccentric, and each end of the elbow being eight inches from its centre of motion, causes on either end a deflection of but five-eighths of an inch beyond a straight centre line. At the same time, the cutters have as much velocity as the best reapers and mowers in use. They make but half the reverses or vibrations, and require less than half the weight of cutter bar and connections of either of them, while it is equally strong.



This cut represents a transverse section of the wrought iron cutter beam, with a section of the cutter bar, cutters and divider. B represents the cutter bar to which the steel blades are attached, on its under side,—the bend of the blades being upon their upper side, and sickle-edged. These blades also extend back of the cutter bar, with cutting angle and edges same as before it, but not terminating in a point. This rear projection serves to cut and clear the "clog" or fibre which may possibly escape the forward cut and be drawn into the dividers. D represents a section of the crank axle which extends through the hollow beam and supports its outer end. C represents the double plate hollow beam with attachments. A represents the divider, with openings and guides through which the cutters pass; this divider is made very true, and with sharp corners over which the cutters pass, forming a perfect shears cutting action. These dividers are wider than most others, leaving a space of about two inches between them, thus better protecting the cutters from injury from stones, also compressing the grass or grain into a more dense body, and better condition for the action of the cutters.



The cut showing the mower represents wheels attached, same as with the reaper. However, where the fields are small, and it is desirable to have it smaller, and the crop of grass or grain is so light as not to produce an excessive side draft on the horses, the forward wheels and seat may be removed, and the horses hitched closely up to the machine, the driver moving back upon a seat directly forward or over the large main wheel.

These cutters and dividers are not dissimilar to those used by the first premium mowing machine at the late trial by the State Society, with the exception that the divider is made to fit round the under side of a wrought iron cutter beam, the beam itself being made of two plates of wrought iron rolled into a sort of trough, with their concave faces placed together, and then firmly riveted, thus forming a hollow beam. An enlarged but imperfect representation of the divider is shown in Fig. 3.

Through this hollow beam a shaft is passed, and at its extreme end this shaft is turned at right angles to the rear of the beam about two feet, and a wheel attached to its rear end, to support the

Fig. 1.

Fig. 2.

Fig. 3.

outer end of the beam. At the inner end of this shaft is attached a sort of crank or lever about two feet long, extending forward towards the driver's seat, with a leather strap or chain attached to it. This strap, passing upwards and over a shieve, extends along the large lever to the driver's seat, and passing another shieve, and is then attached to the foot board of the driver. This main lever, which is seen passing the driver's seat, is made permanent to the machine itself, and is kept in its desired position or elevation, by means of an upright post beside the seat, with a series of catches and latch, operated by the driver's foot, so that while the person is raising the lever with his hand, with his foot he loosens or confines it where he desires.

Therefore, while he raises the lever, lifting by it the side of the machine directly in rear of himself, the strap or chain is drawn over the shieves, and the end of the wrench lever is raised sufficiently to turn the crank shaft which extends through the cutter beam, and by this being turned, the wheel at the outer end becoming a fulcrum on the ground, the beam itself must be raised at its outer end so as to maintain a uniform elevation of its whole cutting front from the ground.

The apron itself is shown with its fixtures in Fig. 2, detached. It is made of a strong frame work and light covering of wood and tin. The T standard at its back is a breastwork to protect and support the raker, who stands erect, face forward, directly behind it. The delivery is at one side, and has a slight elevation above the cutters, about 1½ inches, and is over four feet wide. A reel may be used at pleasure, and is always sold with the machine. The reel is driven by a pulley on the main wheel shaft—the band passing below the apron to the front side, where it passes upward to and over a pulley on the reel shaft. The band

and pulley have been omitted by the engraver, although in his sketch made from the machine.

Price complete for this machine will be about one hundred dollars, with the warranty.

THE HIVE AND HONEY BEE.

In advance of publication, we have been permitted to look at the sheets of a forthcoming work on the above subject, by the Rev. L. L. LANGSTROTH, of Greenfield, Mass. We have read them with pleasure, and believing in their statements, as we do, from our own observation of the habits of the bee, we may add, with gratification and delight. The descriptions are clear and concise, and are strengthened by quotations from the ablest writers on the subject. We give below a single extract now, and shall refer to the subject again.

Many persons have not the slightest idea that *every thing* may be *seen* that takes place in a bee-hive. But hives have for many years been in use, containing only one large comb, enclosed on both sides by glass. These hives are darkened by shutters, and when opened, the queen is exposed to observation as well as all the other bees. Within the last two years, I have discovered that with proper precautions, colonies can be made to work in observing hives, without shutters, and exposed continually to the *full light of day;* so that observations may be made at all times, without in the least interrupting the ordinary operations of the bees. By the aid of such hives, some of the most intelligent citizens of Philadelphia have seen in my Apiary, the queen bee depositing her eggs in the cells, and constantly surrounded by an affectionate circle of her devoted children. They have also witnessed, with astonishment and delight, all the steps in the mysterious process of raising queens from eggs which with the ordinary development, would have produced only the common bees. For more than three months, there was not a day in which some of my colonies were not engaged in making new queens to supply the place of those taken from them, and I had the pleasure of exhibiting all the facts to bee-keepers who never before felt willing to credit them. As *all* my hives are so made that each comb can be taken out, and examined at pleasure, those who use them, can obtain from them all the information which they need, and, are no longer forced to take any thing upon trust.

For the New England Farmer.

POSTS AND STAKES.

MR. EDITOR:—I have been a constant reader of the *New England Farmer* over one year, and do not recollect of seeing anything in it about setting posts and stakes in fence. I had heard it stated that the top end of the stick should be stuck in the ground. In 1838 I took a stick 14 feet long and cut it in the middle, setting the butt of one up, and the other down, 12 feet apart. In five years the one with the butt down rotted off, and the other stands sound yet. J. DAVIS.

East Barnard, Vt.

REMARKS.—The above is a model communication, Mr. DAVIS utters his facts without preface or circumlocution. They are read in a moment, understood as quickly, and are worth a "mint of money." The evidence is strong enough to induce any man, if he will but look at it, to set his posts and stakes butt-end up.

A person writing in the *Hartford Times* several years since, said that in taking up a fence that had been set fourteen years, he noticed that some of the posts remained nearly sound, while others were rotted off at the bottom. On looking for the cause, he found that those posts that were set *limb part down*, or inverted from the way they grew, were sound. Those that were set as they grew, rotted off.

"A Farmer" writing in the *Germantown Telegraph* in 1849, says a gentleman in one of the New England States set a series of white oak posts, and for the purpose of testing the theory, set every other one top part down. After *eight* years the inverted posts were sound and good, while those that had been set with the butts down were, in almost every instance, decayed.

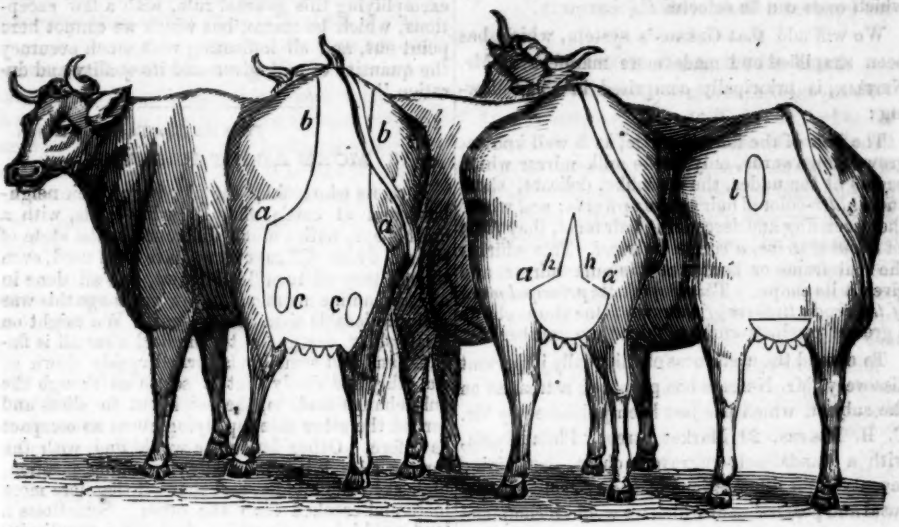
Another person in the same State set two chestnut posts for the purpose of hanging a gate. After a lapse of *eighteen* years he found the one butt end down very rotten, while the other, set with the top end in the soil, scarcely exhibited any appearance of rot.

The reason probably is, that the sap vessels are filled with sap, undergo a chemical change, and induce internal decay, while the moisture from the earth carries on the same operation on the external parts of the wood. Or, it may be, that the tubes through which the sap ascends have valves or separations, to prevent the weight of the sap from falling back, and that if the posts are set as they grew the moisture would rise as did the sap. While if inverted, not only would the sap flow down, leaving the post dry, but no moisture would rise.

But we are not certain about this. The subject is important, and worthy the attention of some of our scientific correspondents.

All persons making fence will do well to remember these facts.

THE COLD GRAPERY.—This is the title of a neat little book giving directions how to raise grapes in houses under glass and without artificial heat. It is prepared by WILLIAM CHORLTON, Gardener to J. C. Green, of Staten Island, N. Y. We have read it with interest, and think it will prove very useful to those attempting to cultivate the grape without fire. Many persons would be glad to erect the building and fit it up, if in this way they could succeed in cultivating the grape without the constant trouble and expense of erecting furnaces and keeping up an artificial heat. We hope that by the aid this book will afford, they will be able to succeed. Published by J. C. RIKER, 129 Fulton Street, N. Y.



GUENON ON MILCH COWS.

We have heretofore noticed the work of M. GUENON in relation to testing milch cows by certain appearances of the hair commencing at the udder and running up the thighs. Having a good deal of confidence in this mode of ascertaining the milking properties of cows, both from our own experience and the opinions of other observing persons, we have thought the matter of sufficient importance to procure an engraving, and give such other brief illustrations as would make the subject clear to the reader.

While the subject is before us, we find the Editor of the *Germantown Telegraph* has been giving it attention, and we avail ourselves of his labors, mainly agreeing with him in the value and importance of the system. He says, "sometime ago, at a meeting of the Philadelphia Society for Promoting Agriculture, Mr. JOHN NEFFLIN, an elderly, respectable and intelligent farmer from Germany, was introduced, for the purpose of enlisting the attention of the society to GUENON's method of increasing the yield of the milch cow, by selecting the proper animals for the dairy, according to his method, or rather discovery. Mr. NEFFLIN desired that a committee should be appointed to test this system, as he was satisfied that all that was needed to impress the members of the society and the farming public with its truthfulness and importance, was a trial, or many trials, inasmuch as he had never known the tests to fail, after many years of observation and experiments.

The Society, always anxious to promote the interests of agriculture, even at heavy pecuniary expense, when the object seems to warrant it, at once appointed a committee to investigate the matter—though several members had previously been strongly impressed with the truth of the system—consisting of Dr. ELWYN, GEORGE BLIGHT, ISAAC NEWTON, JOHN WILKINSON, SAMUEL WILLIAMS, and SAMUEL C. FORD.

The committee, after the trials had taken place, say in their report:

"More than forty cows were examined by Mr. NEFFLIN, in the presence of members of the committee. All the remarks of Mr. N., all the questions and answers, were taken down at the moment by Mr. ARTHUR CANNON, phonographic reporter; and all his statements were compared with those of the owners of the cows; and after a full and particular investigation, carried on in the most searching manner, and sharpened by incredulity, the committee have no hesitation in giving their adhesion, and expressing their concurrence in the views of GUENON. The precision and accuracy with which Mr. NEFFLIN described the qualities of the animals, and the unhesitating manner in which he revealed all their properties, could not but impress the committee with an entire reliance on his own skill, and a perfect confidence in the views of his teacher."

The stock of Mr. FORD having been examined and their qualities described, Mr. F. certifies that "it is a correct report of the qualities of his cows. Mr. WILKINSON also certifies as to his stock examined and described in the same manner, as follows:

"The description given of my cows by Mr. NEFFLIN, after he examined them by his improved GUENON system, is in the main very correct, and satisfies me that this is the only reliable system by which cows can be selected."

We will add that GUENON's system, which has been simplified and made more manifest by Mr. NEFFLIN, is principally comprised in the following:

The hair of the horned cattle, as is well known, grows downwards, only in the milk mirror which begins at the udder, the downlike, delicate, short and *lighter*-colored hair grows upwards; and where the ascending and descending hair meet, they *form an elevated stripe, a vortex or whirl.* This whirl is the real frame or border of the milk mirror, and gives it its shape. *This shape is the principal mark of the productiveness of the cow.* One shape shows a greater productiveness of milk than another."

To extend the usefulness of this really important discovery, Mr. NEFFLIN has prepared a treatise on the subject, which has just been published by Mr. C. B. ROGERS, 29 Market Street, Philadelphia, with a handsomely-engraved chart, containing seventy-eight illustrations of the system—the perusal and possession of which we would recommend to every farmer for his guide in selecting his dairy stock; and especially do we commend it to their attention, as the rules laid down are applicable to calves three months old.

EXPLANATION OF THE LETTERS.

a, *a*, The greatest breadth of the mirror in all the classes and orders.

b, *b*, breadth of the upper end of the mirror in the first class.

c, *c*, ovals (O) above the teats.

The cow of the first figure is represented to yield 20 quarts a day for *nine* months; that of the second figure 6¼ quarts a day for *four* months; and that of the third, 2¼ quarts, and no particular time mentioned.

The Editor of the *Country Gentleman* says,

"Guenon's chief rule consists in the breadth of the 'escutcheon,' or space immediately behind the milk bag and contiguous parts, contained within the boundary lines, formed by the meeting of hair growing in opposite directions. The hair on the escutcheon grows upwards and meets with the hair on the other parts. In the very best cows, or those which give the greatest quantity of milk and also continue in milk a long time, or the year round, the escutcheon is very broad and extends upward to the root of the tail. Such animals are very rare, and in ordinary instances and under good feeding and keeping, will yield about six gallons of milk per day.

In less perfect animals, the escutcheons will be narrower, and frequently will extend only part way to the tail, and so in different cows diminishing in breadth until it reaches the medium which is found to exist in the greatest number, by far, of all milch cows. In poor milkers, it is quite small; it varies also considerably in shape, but the same general rule applies to all shapes, namely, that the *area* of this escutcheon is an accurate indication of the amount of milk any cow will give. Guenon figures and describes no less than seventy-two different forms and sizes of escutcheons, all exemplifying this general rule, with a few exceptions, which he states, but which we cannot here point out, and all indicating with much accuracy the quantity of milk given and its quality and duration."

From the New England Farmer.

MORE ABOUT PLOWING.

Farmers who look at the plowing of their neighbors, and at cattle show plowing fields, with a critic's eye, notice much difference in the state of the soil where different plows have been used, even though they all turn flat furrows, and all done in a workmanlike manner. A few years ago this was more noticeable than at present. We might on cattle show day go on to the field after all is finished and find some lands turned upside down so smoothly and nicely that it seems as though the only change made is, the soil is cut in slices and turned the other side up, lying about as compact as before. Other lands we would find with the furrow slice lying in a slightly rolling position, highest in the middle, and the soil therefore more loose and crooked than the other. Sometimes a land would be seen which, from some peculiarity about the plow, had the appearance of having been finely harrowed.

This matter of the condition of the soil in the furrow slice, whether loose and porous or solid, seems not to have attracted due notice from plow judges and writers. They have said much about the position and width of the furrow, but seem to have left its pulverization as a matter of course to the gentleman with the harrow. Now harrowing on stiff land, newly broken up, I find to be the most hard and wearisome of all spring work, both for team and teamster; therefore the plow which leaves the soil in a good condition to harrow quick and easy, is plainly far preferable to one which merely turns it and leaves it about as solid as it found it. The Michigan double plow does this to perfection, and is likely to be popular on that account.

But it is plain by what we have all seen, that the single plow may be greatly improved in this respect. Let our plow-makers care less about the trial with the dynamometer and more about putting the soil in good condition; that is the first and main point, ease of draft is secondary. I believe there is yet plenty of room for improvement in the making of plows, both for breaking up the sod and for working old land. BACHELOR.

March 12, 1853.

SHEEP SHEARING FESTIVAL.—The third annual Sheep Shearing Festival, by A. L. BRIGHAM, Esq., of West Cornwall, Vt., will take place at the hotel of JAMES R. HYDE, in Sudbury, Rutland county, Vermont, on the first and second days of June next, at 10 o'clock, A. M. From 50 to 100 French Merino Ewes will be publicly sheared, so that all may see and judge of the sheep and fleeces for themselves. Every accommodation will be rendered to make the stay of the visitor agreeable.

HINTS FOR THE HUSBANDMAN.

SORREL.—The presence of this production—grass we are not permitted to call it—is always to be considered as an indication of a lack of calcareous matter, for where the quantity of lime in the soil is not deficient, sorrel will not grow. On all light, silicious lands, lime has consequently been found a most useful article, and its application invariably attended with highly favorable results.—And just in the ratio of its uses, whether in compost or in its natural state, so far as our information extends, has been the diminution of the sorrel crop.

GOOD TOOLS.—The old adage—"He must indeed be a good workman who can *afford* to work with poor tools," is one which, in our opinion, embodies a great deal of truth. If we farmers employ a mechanic—a mason for instance, or a house carpenter, to execute a "job of work," we of course expect he will come provided with the requisite *tools*. Should he make his appearance upon the premises with but half the implements required for the expeditious and successful consummation of the work intended, we should not hesitate to demur, and doubtless would dismiss him and entrust the job to another and more competent hand. But how is it on our farms? Are we always as jealous of our interests here? We think not. How often indeed is it the case that our "helps" are required to plow, mow, reap, and hoe, with implements which are not only "out of fashion," but too clumsy and ponderous for any except an Ajax to wield. Many of the old-fashioned implements are still to be found on our farms—such as plows, dung-forks, hoes and the like, and with these "hired men" and boys are frequently expected to perform as *much* work, daily, and to "finish it off" "*as neatly*" as though they were provided with the best implements the market can afford. This is poor economy. It is better to give away a poor or inefficient tool—no matter what may have been its original cost, and purchase a new one of modern construction that will easily enable the operator to perform more work, and in a more workmanlike manner, in one day, than he can possibly accomplish in two, with the old one, than to retain it in use, and lose ten times its value in the result. Away with the "old fogies," then, and obtain the light, convenient, and beautiful ones of modern days.

GOOD FARMING.—Rawstone, in his "Remarks on Lancashire Farming"—a very valuable and erudite work, says:—

"It may be laid down as a standing rule, and as a guide to direct us, that all good farming—the whole of that process by which bad land is to be converted into good and productive, and to be continued in that state,—is comprised in the three following operations of husbandry, viz.;—

1. To carry off all superfluous and stagnant water, by means of judicious draining.

2. To retrieve, through the medium of manure, the strength and fertility which has been exhausted by cropping.

3. To extract all noxious weeds, that the strength of the manure may be thrown into the crops, and not into the weeds." Every farmer who exercises his mind in the cultivation and management of his fields, will at once recognize the importance of attending to the foregoing observations. Yet, obvious as are the truths they inculcate, many, we fear, will fail to profit by them.—Farmers need "line upon line, and precept upon precept," in these matters.

For the New England Farmer.

SUGGESTIONS IN COMPOSTING.

BY F. HOLBROOK.

MR. BROWN:—Your correspondent, S. Tenney, of Lewiston Falls, in a communication dated March 7th, upon corn culture, gives the results of deep plowing and high manuring upon ⅛ths of an acre. He states that by applying as much manure into four cords, on this piece as he applied the year previous on 1½ acre, (of which the ⅛ths formed a portion,) and plowing deep, he obtained fifteen bushels more of corn than he did the year previous on the whole acre and a half.

I have to request of Mr. Tenney that he will lay the ⅛ths of an acre, and the balance of the 1½ acre, down to grass with grain, and let the two pieces remain in mowing for say four years, carefully noting the comparative products of grain and hay on them. If he does not find himself paid many times over in the extra product of the former over the latter piece, for the extra labor and expense of the manuring and deep plowing, then my past observations in the field are erroneous. It would be an experiment easily tried, and desirable as affording an argument with which to convince the farmers in his neighborhood of the value of deep plowing and generous cultivation. As I have frequently observed, it seems to me that here in New England we need more generally to adopt a system of high manuring, deeper plowing, and a more thorough pulverization of the soil. Mr. Tenney's experiment thus far is in the right direction, and I hope he will carry it forward to a full demonstration.

I would like to suggest another mode of tillage to Mr. Tenney as worth his while to try. It is this: take a piece of grass land that needs plowing, and turn it over this spring. If the land has heretofore been plowed six inches deep, plow it eight inches this spring; or if seven inches formerly, plow nine inches this spring, laying the furrows accurately and smoothly over. If he has no sod-plow that will work rightly at these depths, let him procure Ruggles, Nourse, Mason & Co.'s Deep Tiller No. 75, and he will find he has purchased an instrument worth having. If the compost is not very strawy, spread it before harrowing the furrows, then harrow both ways, and then take a light plow guaged with a wheel to work shallow and turn the manure in three to four inches deep. If the compost is pretty coarse, then harrow first, spread the dressing and plow it in as

before, always avoiding the bringing of the sod to the surface. Plant corn and cultivate it cleanly. The next spring open and pull down the corn-hills with a heavy harrow, then plow down three or four inches deep, still leaving the sod undisturbed beneath, and sow grain with grass seed and convert the land to mowing. So far as I know, Mr. Tenney will find this the cheapest combined with the quickest mode of restoring tillage fields considerably worn, to productiveness and profit. What was before the surface and became filled, with vegetable matter in the form of grass roots and stems, remaining beneath to decay, is a fine mellow bed of nutriment for the growing crops; while the former cold lower stratum is made active by the atmosphere and the manure; and the roots of the grasses having a deeper range than formerly by shallow plowing, the sward will not so soon become bound out by the entangling of its roots in a thickly-matted web, and the hay crops will be consequently more lasting and productive.

Your correspondent, "Young Farmer," in a communication dated March 19th, inquires for ways to re-invigorate an old pasture, too far off to receive manure from the stables and yards. You advise him very judiciously as to the time for plowing it, and indicate several fertilizing compounds which he may undoubtedly apply with advantageous results following. With your permission I will extend the list a little farther.

If "Young Farmer" has a bed of muck lying near his pasture, he had better try on a portion of the plowed land a compost of muck with ashes or lime. The compost should be finely worked, and mixed in the proportions of two bushels of unleached ashes or one bushel of dry-slacked lime to a half cord of muck, and lay in heap a few weeks before using it on the land. If the bed of muck lies handy, and the ashes do not come higher than fifteen cents, nor the lime higher than thirty cents per bushel, a good coat of compost can be furnished for from eight to ten dollars per acre.

Plow the land in August, seven inches deep, in narrow furrows laid over smoothly, apply the compost on the surface of the plowed land, and harrow fine. Sow rye, with a mixture of red and white clover, herds-grass and red-top seeds. Sow grass-seed liberally, so as to fill the surface with a good stand of the grasses. If present profits must necessarily be considered, harvest a grain crop the next year; but if a later return can be waited for, feed off the rye as pasture, taking no matured grain-crop, and the ultimate profits will be the greater.

Your correspondent, F. H. Currier, in a communication dated Jan 8th., inquires for ways to compost muck and fit it for use as manure. Among other modes, you refer him to one of mine, detailed in the 3d Vol. *Monthly Farmer*, page 381, and also recommend composting it with lime or ashes. I have frequently tried these modes, and can speak confidently in regard to each of them. A few years since, I plowed up a tract of grass land, and not having manure enough from the stables and yards to go over the whole piece, made a compost of muck and ashes to supply the deficiency. Thirty cords of muck dug a year previous were composted with one hundred bushels of unleached hard-wood ashes, and the mixture was applied to two acres. The ashes cost me fourteen cents per bushel, and the muck two shillings per half cord, delivered on the field. The compost was intimately mixed up in the fall, in one large heap, which was once shovelled over the following spring. It was applied on the surface and harrowed in. The corn-crop on these two acres was entirely satisfactory in amount and quality.

I have frequently applied a compost of muck with dry-slacked lime,—though when I can buy ashes readily at not too high a price, I prefer a given outlay in ashes rather than in lime. The best fresh unslacked lime is the cheapest, because it is more effective in compost and swells very much in bulk when dry-slacked for use. Six years since, I had a heap of seventy-five half cords of muck mixed with lime, in the proportion of a half cord of muck with a bushel of lime. The muck was drawn to the field when wanted in August. A bushel of salt to a tierce of lime, 6 bushels, was dissolved in water enough to slack the lime down to fine dry powder, the lime being slacked no faster than wanted, and spread immediately while warm, over the layers of muck. The layers of muck were about six inches thick, then a coating of lime, and so on till the heap reached a height of five feet, a convenient width, and length enough to embrace the whole quantity of the muck. In about three weeks a powerful decomposition was apparent, and the heap was nicely overhauled, nothing more being done to it, till it was loaded the next spring for spreading. The compost was spread on the plowed surface of a dry sandy loam, at the rate of about fifteen cords per acre, and harrowed in. The land was planted with corn, and the crop was rising of sixty bushels per acre.

It has been the custom with me for several years past to make composts of this kind to supply any deficiency in quantity of other manure to dress and fertilize the amount of land I may want to plow. When these alkalines are used in compost, the mass should be applied to and kept near the surface of the soil, as their tendency is to sink down. They are very valuable when mixed with muck, because they neutralize its acids, promote its decomposition, and make it a free mass of vegetable or organic substance, fit for the nourishment of crops.

And now, my friend, if you think these hasty observations may be interesting or valuable to any of your readers, you may use them for that purpose. Anything herein that is not made plain and specific enough, will be detailed more fully, at the request of yourself or others. F. HOLBROOK.

Brattleboro', March 18, 1853.

For the New England Farmer.

CHOKED CATTLE.

MR. EDITOR:—I notice in the March number of the *Farmer*, page 145, an article upon the subject of cattle choking in feeding. It is a subject with which I have had some experience, but since the discovery of the following method of operation have had no difficulty in relieving in all cases where it has been applied. When an animal is discovered to be choked, it should as soon as possible be placed where it can be handled, and an instrument of the following description forced down the throat until it is relieved.

Take a tough piece of timber the size of a good whip stock, from three to four and a half feet long, a ball of yarn, or some soft substance put on the

small end,—a piece of soft leather drawn over it and confined to the stick with a cord or twine tied around above the ball, and secured from pulling off by means of notches cut in the stick; the ball should be from one to two inches in diameter, in proportion to the size of the animal, and greased when used. Such an instrument may be used without any danger of injury to the animal operated upon. I have used it with perfect success with choked swine, in several cases.

But in general, a preventive is better than a cure; therefore, perhaps I cannot render a greater benefit to the feeders of neat cattle, than to inform them, if not already acquainted, with a simple, but I think infallible remedy against cattle choking when feeding; they may get choked when running at large, but when animals are to be fed with any article with which they are liable to get choked, place them in the stall, or tie-up, and simply put a bar or stick over their necks sufficient to keep them from raising the head above the level of their bodies, they never get choked, try it.

A SUBSCRIBER UP NORTH.

COST OF FENCES.

We are not aware that any very reliable estimates have as yet been made, by practical men, relative to the cost of the several species of enclosures ordinarily made use of on farms. In looking over an old number of the *Farmer* recently, we found a paper on this subject furnished by Mr. SHURTLEFF, which is worth repeating. The estimates are given by Mr. S. as the deductions of his own experiment:—

"White cedar fence made of posts and rails, five rails in height, three lengths to two rods nearly, cost 91 cents a rod.

White pine rails sawed two inches by eight, and chestnut posts, four rails high, three lengths to two rods nearly, cost 64 cents a rod. In both these instances the cost was exclusive of the setting.

Good four and a half feet stone wall varies from $1 to $2,50 the rod, according to the ease with which the stone could be procured, and the manner in which it was laid, whether by trenching or otherwise.

Hedge fence made of Virginia thorn plants, (Crataegus cordata,) set twenty-one to a rod, cost at the end of the fourth year, including planting, trimming, &c., 50 cents a rod."

It will not be questioned, we presume, that in the above estimate, the cost of stone walls is greatly too high. The expense of transporting stones from fields and pastures when they oppose a serious obstacle to the operations of the cultivator, and when they occupy much land which their removal renders available for important purposes, ought not, we think, to be taken into the account. The cost of "laying" wall, when the stones are of proper size, is generally from twenty to thirty cents, but the artistic skill demanded in the operation is so slight that any farmer can construct his own walls, if he can but persuade himself to think so. By rolling the largest stones into lines and securing them by smaller ones to prevent their canting out of place, and building upon them with smaller stones, till the fence is of the required or proper height, a substantial wall will be procured at a very trifling expense, as the work may be performed at seasons of comparative leisure, and when, generally, there is little of any thing else to do. "Double walls," and "faced walls," though they have a more neat and *finished* appearance, are never desirable, except when there is a large amount of stones to be worked up, or where the wall is near buildings, and intended partly for ornament, as well as utility. In "facing," stones are often laid with reference to neatness, rather than stability. To secure a "good face," some of the most important principles of masonry are frequently neglected, and beauty secured at the expense of durability. Single walls, if the stones are of proper size, are to be preferred.

For the New England Farmer.

BENEFITS OF AGRICULTURAL PAPERS.

MESSRS. EDITORS:—Knowing by experience that much good results from the matter contained in papers, I think it necessary that we all strive to improve them. How can this be done? It can be done in various ways. Let every reader that has received a dollar's worth of information, through the papers, acknowledge it, and at the same time communicate something from his own experience, to benefit his neighbors. One man can raise a bushel of corn for less expense than another; let him show his method, with all the items of expense. One thinks poultry and eggs can be produced with a handsome profit, another believes different; let facts decide. The manufacturer of plows will tell you that his is the best, and his story seems true, until his neighbor, the plowman, decides to the contrary. A word about plows; is it a fact that plows are better than they were in bygone days? More than thirty years ago I held a plow that did actually cut and turn over furrow after furrow, keeping its place at the end without a hand being applied to it. Then there was Keith's plows so generally used twenty years ago, that I verily believe do better service than many of those now in use. The woodchopper works to disadvantage, when he wields a heavy irregularly formed axe. Perhaps a hint to agricultural societies to offer a handsome premium for the best *axe* might result in lasting good. The cultivator of corn would be wise to avail himself of a remedy against the ravages of the *cut-worm*, which remedy has been applied by the writer of this, for nearly forty years, without a single failure. *It is a coating of tar applied to the seed corn.*

To make our agricultural papers useful and interesting, it requires talent as well as the offerings of the small farmers; to bring about this result, let the officers and members of agricultural societies write over their proper names, the principles of farming, and facts connected therewith; let the farmers of unlimited means show by figures, the

expense and income of their crops, each different crop by itself, then sum them all up, so as to know whether their business will pay; and let the farmer of limited means tell his story, and meet his wealthy opponent for a fair discussion of the whole matter of agriculture. Too many of our able writers keep themselves behind some assumed name, so that we know not who we have to contend with; then again what they write is so void of particulars, that we can hardly take ground to reply to them. Would it not be well for you to give out weekly, some particular point in farming, to be discussed by your readers, their communications to be inserted in two weeks from the date of the question, all writers to be limted to a certain space. This would have the advantage of a Lyceum, by the writer being obliged to advance his own opinions without being swayed by those of others.

I like short articles from practical men. I like, when reading a statement of any branch of farming, made to show that it is profitable, to be directed to the exact amount in dollars and cents.

West Needham. R. MANSFIELD.

INDIAN CORN.

There will never be a time, probably, when Indian corn will not be contemplated in the light of an important staple, by the American agriculturist. For a great variety of uses, it is certainly unsurpassed in the catalogue of grains, and in point of productiveness it compares favorably with most grains. Yet there are a great many who consider its cultivation as a matter involving much uncertainty and risk. They complain of the early frosts, which cut off the young plants; of the drought, which coerces or averts the development of the grain, and of the later frosts, by which it is sometimes, though rarely, destroyed. All crops are liable to accidents, and corn can by no means claim an exemption. Yet that it is more liable to suffer and be destroyed by untoward events than other crops of similar value, is what no one, perhaps, who candidly contemplates the subject, will pretend to assert. If the early frost withers the tender blades, it never destroys the roots; a few warm days reclothes the field in its pristine verdure, and the real injury is, at most, but nominal. The drought, or its effects, none can prevent, though the latter may be very essentially mitigated by adopting a judicious course of cultivation. Formerly the old Indian method of elevating a high conical hill around the roots was in vogue; but this has been found to be an error. The more of these hills there are on an acre, the greater, of course will be the extent of surface exposed to the sun and winds, and the greater the exposure, the greater too must necessarily be the evaporation in a dry time. It was also deemed essential, in order to obviate the effect of drought, to allow the weeds to grow and cover the soil to keep out the sun, and thus preserve the soil perfectly moist and cool. Now experience has demonstrated, and the most indifferent observation will convince any one that the more vegetation there is on an acre the greater will be the drought upon its moisture. If, in a severe drought, you pull up a handful of weeds from a mass, the foliage of which completely shuts out the sun from the soils, you will find the roots bring up no moist dirt; while the soil on which no weeds have grown, though in the immediate vicinity of the former, and exposed to the unmitigated heat of the sun, will be damp. In working corn lands, we should endeavor to keep the surface clean and light. Fine, well pulverized earth is a non-conductor, and consequently the oftener we pass through our fields with the harrow or cultivator, in dry weather, the better will it be for the crop. A brick, fresh from the mould, if placed in the yard and covered with a *stratum* of perfectly dry sand, will retain its moisture five times as long as one struck from the same clay and at the same time, if exposed openly by its side. No hills should be made around Indian corn. Plant so as to pass both ways through the field, i. e., longitudinally and transversely, and do the working with the cultivator and horse. The few weeds that remain after the latter has passed, are easily eradicated with the hoe or hand, and all the rain that falls will be carried to the roots, instead of being thrown from them into the centre of the space between the rows. If you plant a kernel of Indian corn in rich soil, and suffer it to grow without hilling, it will take as strong a hold, and maintain itself as firmly against winds, as one that is hilled, and more so. But if, after it has run up to the height of three or four feet, you bring up three inches of dirt around the foot stalk, the lateral roots, which are its stays and braces, will stop growing, and a new emission of laterals will be induced from the section covered by the fresh soil. The old stalk will also be blanched by the privation of air, become crisp and brittle, like asparagus grown under leaves, and easily break. The same will take place as often as fresh dirt is drawn up; and the energies of the system exhausted by sending forth roots from which it in return can derive but comparatively slight support.

For the New England Farmer.

OYSTER SHELL LIME.

MR. EDITOR:—Dear Sir,—Will you inform me through your valuable paper, of the comparative value of oyster shell lime and stone lime, as a corrective of the acid in peat mud, in conjunction with salt, according to the receipt of Prof. Mapes. Many of my neighbors, as well as myself, wish to use the oyster shell lime, manufactured at Medford, if it is really valuable. By giving us information, you will confer a favor on MANY.

REMARKS.—See advertisement for explanation in another part of the paper.

For the New England Farmer.

FIELD SEEDS.

Mr. Brown:—I venture to send you a few thoughts on the subject of *field seeds*. And as the time approaches when farmers have occasion to use them, I trust that these thoughts, if deemed worthy of a place on your pages at all, will not be accounted unseasonable.

Many farmers are awaking to the importance of seeking the best kinds of stock, and the best quality of field seeds. But I do not recollect to have seen a caution offered on your pages, with sufficient explicitness, against allowing foul seeds of any sort to be mingled with the seed we use.

No man needs to be informed that soil pre-occupied with weeds, cannot very largely yield useful produce. Every intelligent farmer knows, though too many are very remiss in improving their knowledge, that if he would secure a good yield of either grass or grain, the strength of the soil must be reserved for it.

The farmer who sows foul seed in his fields, commits an error which in the end must cost him dear. He may use an indifferent bull or horse, or buck, and suffer only temporary injury, because he can rid himself of his worthless stock, and thus end his loss. Not so when he sows foul seed. His loss but begins with his error. He introduces an enemy into his enclosures, to which he must either surrender at discretion, or maintain at endless labor and expense, a warfare always exhausting, and commonly futile, because not waged with sufficient energy and thoroughness. He entails, too, upon posterity, a curse of inestimable magnitude.

Do not dealers in agricultural seeds often contribute to the evil in question; sometimes inadvertently, but as often, perhaps, for the sake of the profit they secure? Of the occurrence of the following fact I am assured.

Some two years since, a gentleman of this community wishing to obtain some "imported spring wheat," and some spring rye, wrote to a friend in your city to ascertain whether he could procure it for him perfectly clear. The friend replied that he had the assurance of a dealer whom he had consulted, that he would furnish both the kinds of seed sought, in the condition specified. A few bushels were accordingly ordered, and with the bill transmitted, there was a printed assurance that the house dealt in no seeds but those of the best quality and in perfect condition. Great was the purchaser's surprise, therefore, when on opening the casks, his attention was attracted not by the beauty of the grain, but by the variety of foul matter it contained. Happily for him his neighbors had engaged most of the *wheat* before its arrival, so that he had but a single bushel remaining. This he attempted to clean with screens, but failed because a part of the foul seed was larger than the grain. He was compelled, therefore, either to forego the sowing of the seed, or with it to sow that which would be ruinous to his land, or to clean it by picking it carefully over by hand. The latter course he adopted, looking over a spoonful at a time, and it is hardly credible, though strictly true, that besides a liberal sprinkling of rye and barley, he found no less than *fourteen* different kinds of foul seed, amounting in the whole to about three quarts. This, too, was *imported* foul seed, as though our farmers have not already indigenous weeds enough to contend with.

The case of the rye was not much better. It could not be cleaned by screening, and it was not worth picking over. So the purchaser carried it to the mill and had it ground for his swine. To a word of remonstrance sent by the purchaser to the dealer, the latter replied that he sold "as clean seed as others sold, of the same importation." To the rye he made no allusion.

Now, Mr. Editor, I hold that important as the introduction of certain grains may be to our country, their usefulness can never equal the mischief done by the simultaneous introduction of a dozen kinds of foul seed, to become, by unavoidable dissemination, a pest through the land. Who will pretend to estimate the mischief of a single importation of grain in the condition of that above specified! Who *can* tell the amount of the evil! Would not any quantity of seed, in such condition, be a dear *gift* to the country, since some of it would of course be sowed by careless farmers, and since the spread of noxious weeds when once rooted, though it may be gradual, is inevitable.

A word of exhortation, and I have done. If we would raise good crops, let us seek seed of the best quality. If we would have clean fields, let us use only clean seed. If we would enjoy the pleasures as well as the profits of farming, let us labor to keep our farms in good condition, while we labor with equal diligence to keep a "conscience void of offence toward God, and toward man."

L. Matthews.

Cornwall, Vt., March 20, 1853.

Remarks.—We improve the earliest moment to give place to these timely and valuable suggestions. Endless troubles, labors and losses, grow out of the practice of sowing mixed seeds. It is hoped these hints will lead to a careful examination of seeds before they are committed to the soil, as well as a stricter regard to their purity by those who import and sell them.

ADDRESS BY WM. S. KING, ESQ.

We have read with interest, the Address by Mr. King, editor of the *Journal of Agriculture*, before the New Hampshire Agricultural Society, at Meredith Bridge, on the 7th October last, at its third annual exhibition. We give below an extract, all we have room for at present. The address is written with spirit, and exposes the inconsistencies of those who mock at "book farming," or in other words, intelligent labor.

It was our fortune to have there, (at the World's Fair) among others, one man, who deserves honorable mention at this farmer's festival,—the commissioner from the State of New York, B. P. Johnson; then, as now, Secretary of the New York State Agricultural Society. For many dreary weeks, he stood almost alone; sad and desolate, amid the neglected contributions of his country. Who chanced to visit us, came to sneer. "These Yankee plows," said an unusually unprejudiced visitor, one day, "may do well enough among the rocks and stumps of America; but they are not comparable, for general work, to our English

plows, or even to the Belgian." "Do you know," retorted Johnson, "that in our country, we have fields, without a fence, or a rock, or a stump, larger than your whole island of Great Britain; and these plows have been found to work well there, as they will work well anywhere. This flour is made from the wheat, you see yonder; and the wheat was grown on land plowed with implements like these; that crop of wheat averaged 62½ bushels to the acre, weighing 63 pounds to the bushel." So with the reapers. The *London Times* paraded an account of the American department, and christened McCormick's machine, "a cross betwixt a flying-machine, a tread-mill, and an Astley's chariot." "That flying machine must be tested on the field," insisted the sturdy Johnson, "and let them laugh that win." The tread-mill was tried. The grain, green and storm-soaked as it was, went down before it, as if it were the shears of Fate; and loud, though late, were the honest congratulations of our discomfited critics. The introduction of the American Reaper, alone, was by common consent, allowed to compensate England for all the gross expenses of the exhibition. In like manner, the plows were found to work well on English land. And, finally, the bitter opponent of all that is American and republican,—that same *London Times*—confessed that the United States, by their contributions for ensuring the good of the many, instead of pandering to the luxuries of the few, had carried off the palm, in this World's Tournament.

Why was it that at the eleventh hour, only, was justice done to one of the competing countries? Why did thousands, whose voices were afterwards loudest in praise,—to their honor be this said,—for so long time speak, but to scoff? PREJUDICE had pre-occupied their minds, and jaundiced their vision.

For the New England Farmer.

NEW BRUNSWICK.

MR. BROWN:—I have been a reader of the *New England Farmer* this last twelvemonth, and like it very much. But I have sometimes felt a little nettled at never seeing the name of New Brunswick mentioned in it, either as regards farming or any thing else. You must be aware that there is such a place as New Brunswick, and that your paper extends its circulation hither; but I suppose you think that "New Brunswick is no good for farming." It is better, however, than you are perhaps aware of; and to convince you of that, I have resolved on writing you some particulars regarding its capabilities. What kind of land we have—how we get along—and what we can raise. I do not feel myself altogether qualified for the undertaking, having only been two years in the country, and not being much used to writing, but it seems there is no one with better qualifications that thinks it worth their trouble.

This place is situated thirty miles from Fredericton the seat of the Provincial government, and thirty-five from the American frontier—Calais, Me. The settlers are a mixture of Scotch and English, the first of which commenced in the forest fifteen years ago. They have stuck to their farms and done well. The soil is a clayey loam, (not very stony) and rests upon a hard pan. The geological formation is grey sandstone and granite. The growth of wood may be said to be a mixture of spruce and hemlock, birch, beech and maple.

Chopping down, clearing up, and fencing new land, costs £3 10*s*, or $14 an acre. When it is sown with oats 3 bushels is allowed to the acre, and the return is 50, more or less; 70 is sometimes obtained. The ground is only harrowed twice over, and raked round the stumps. It ought to get more stirring.

We raise famous potatoes here. We had 300 bushels from the acre last season, good and sound. There was 800 bushels raised on one acre, near Frederickton, last year. The ground was a sandy loam, plowed out of the sward, and had no manure except 50 bushels of leached ashes. I saw some bushels of them at the Provincial Exhibition. We are not very particular in planting our potatoes on new land; we make no hole for the seed—just lay down the cuts (3 to a hill) on the surface, and draw the ashes and dirt round them. A neighbor of mine says, "he thinks they are *gie weel* rigged if he gets a chip on them." We raise grass seed in large quantities, and of superior quality; perhaps you may have heard of the Harvey Timothy, a great part of it is sent to Boston. We sow only 3 pints to 4 quarts on an acre—sometimes a little clover is added. The clover grows very strong; a neighbor of mine tells me that he used to sow some clover, but it grew so strong that he could not cut it, and he quit sowing it.

We top the herds-grass with the sickle, hence the seed is very pure. A good hand is allowed to top an acre a day. Four bushels from the acre is a fair crop. As for plow land farming, I have several times seen oats, barley and wheat raised here, which weighed respectively, 50, 60, and 70 lbs. per bushel. The land would do well, if it was well attended to; but there is great room for improvement. Indeed, I have often been surprised to see the crops which are obtained by the mode of cultivation sometimes practised. I know the farmers in my country would think hard to expect a crop from the same system. I have often thought that the farmers in this country calculate too much, sir. The farmers in Scotland do not calculate so much, and yet they are better farmers; moreover they have been allowed to be the best farmers in the world, and yet it has been said of them, that "they are strong as the ox, and as ignorant as strong."

I shall just state that oats here this winter have sold at 2*s*. 6*d*. per bushel, potatoes 2*s*., Timothy seed 14*s*., and hay £4 per ton, all on the spot.

A Scotchman in the backwoods of New Brunswick. JOHN TAYLOR.

Harvey Settlement, N. B., Via Calais, Me., March 2nd, 1853.

REMARKS.—The New Brunswickers shall have a fair chance with us. They send us the finest grass seed the world can produce, and we suppose the men and women would come under the same comparative degree. A "Scotch backwoodsman" seems to be as glib with the pen as the axe, and if he can impart something to benefit "mankind in general, and farmers in particular," why he can "put it through" our columns.

FRAMINGHAM FARMERS' CLUB.—We had the pleasure of attending a meeting of this Club, at Fra-

mingham, on the 21st March. A large audience of ladies and gentlemen was present, and by their attention manifested a deep interest in all the exercises of the evening. They had, as usual, an address, followed by a discussion, which last was on the importance of a good library, and a better knowledge of Agricultural books. There is wealth, and talent, there, sufficient to establish the first, and to appreciate the attractive literature of the latter. With an organization a little more precise, with standing committees on the leading subjects, and essays and reports, one of the most useful associations in the State may spring from this germ.

For the New England Farmer.

CULTIVATION OF FRUIT.

The cherry, plum, peach, quince, pear, and apple, are the staple fruits of New England, and every farmer whose climate and soil is adapted to their culture, should raise an abundant supply for his own family, and as many as possible for the best market he can command. There are many sections, however, in Maine, New Hampshire and Vermont, where the stone fruits, as also the quince, cannot be raised. For instance, the farmers of Vermont should not expect much profit from the peach, plum, cherry, or quince, as they cannot be raised with advantage unless in the southern countries, and the towns bordering on the Connecticut.

But in the southern, middle, and eastern portions of Massachusetts, and the vicinity of all our cities and large villages, they may be, and are raised for greatly remunerating prices. A single plum tree in the vicinity of Boston, has produced $30 or $40 in a year, and many farmers have carried to the market from 3 to 500, and some as high as 8 or 1000 bushels of peaches, and sold from $1 to $2 per bushel, obtaining more clear profit from one-half acre of land, than is realized from a majority of the farms in the State. The cherry should be raisd for family use, and every *good husband* (whether he has a wife or not) who has ground on which to grow them, may have the luxury in the different varieties of good sweet cherries, from four to six weeks.

The quince, may be grown to great profit, although its culture cannot become so generally profitable, as the peach or apple. The culture of the apple is one of importance to fruit growers, in all climates where it can be made to flourish, and there is hardly a farm in New England that has not some locality well adapted for an apple orchard.

My object will be to make some suggestions derived from my own observation and experience, to induce others to engage in this lucrative and pleasant branch of farming. But, says some good old farmer, "I shall never live to raise fruit, if I set out trees; my son James or William may if they want to." But my friend, suppose *you* do not live to enjoy the fruit from those trees, *somebody else will* regale themselves by eating it. And beside, have you not eaten fruit a hundred times from trees that *you* did not set out? And does not justice to the world require that you do as much for others that come after you, as has been done for you by others before you? Away then with that false and selfish policy, so detrimental to all improvement in the moral and physical world. How noble to see a man in the decline of life planting the little acorn that shall grow to a tree, under which, generations yet to be born, shall be screened from the mid summer's sun. Who does not wish to do some beneficent act, to leave the world a little better for having lived in it, and perpetuate a pleasant remembrance to those that come after us. A gentleman some years since, was riding through old Framingham, in Middlesex county, and passing a fine orchard, saw a man standing under an apple tree very greedily devouring a fine apple. The stranger halted, and asked the man to give him an apple. He did so, and finding the fruit excellent, he inquired of the man under the tree, "Who set out this fine old orchard sir." "An old Mr. John Ames, God bless his old soul," said the man with a mouthful of the rich apple. Who does not wish to have a hearty "God bless his soul" rest on his memory for having done something unselfish for the good of others. But look here friend, don't you see that every good fruit tree set on your farm makes it the more valuable, if you ever want to sell it, or for your sons and daughters to live on it? But any man under seventy years, in good health, and in favor of the *Maine Law*, may hope to live to eat of the fruit from the trees set by his own hands. Rev. Mr. Davis, of Fitchburg, tells of an old acquaintance of his, in Michigan, who set out an orchard after he was eighty years old, and lived to eat the fruit thereof, a number of years.

JOSHUA S. EVERETT.

Everettville, Princeton.

LEGISLATIVE AGRICULTURAL MEETINGS.

TENTH MEETING—TUESDAY EVENING, MARCH 22, 1853.

The tenth meeting of the series was held at the State House on Tuesday evening.

The subject of discussion was "*The Subdivision and Fencing of the Lands of a Farm.*"

Mr. BROOKS, of Princeton, presided, and on opening the discussion remarked that he had but little experience in the matter. As to the material for fences, in the district where he resides stone fences are almost universally used, and are considered the cheapest—their first cost being very little more than wood fence of any kind. They will stand thirty to forty years without re-setting, and can be renewed at a cost of 50 cents per rod. He had stone fences on his farm fifty years old, which he had renewed for 25 to 30 cents. He preferred to renew his walls upon the old foundation layer of stones, because they get firmly fixed in the earth and are less liable to the action of the frost. In regard to the subdivision of lands, he considered small lots preferable. In his neighborhood the practice is to enclose in lots of one to three or four acres. Frequent fences serve to keep the snow upon the ground, and retain the fructifying substances which fall with the snow and rain. They also prevent the light *debris* from being blown from land, and thus serve to retain fertilizing matter. Around the wall of an acre lot

the soil for the distance of a rod will be fertilized by the nutritive substances which are blown from the centre of the lot. In large lots this proportion would be smaller.

Mr. FRENCH, of Braintree, said he considered the subject one of much importance. He agreed with the chairman in a measure. On land where there are a great many boulders which cannot be disposed of in any other way, it is good policy perhaps to work them into fencing. But if land is free for the plow, and intended for cultivation, he much preferred to see it all in one lot, with a single exterior fence, and the buildings as nearly in the centre of the farm as possible. By this method the operation of plowing is made much more convenient—there is more room to turn round; but this is on the supposition that cattle are not to be turned in to get the "after feed." In building stone wall, if in a pasture, it might be well to use the old foundations, but if on arable land, not on a boundary line, he would dig a new trench and remove such of the old stones as are used into that. By his method the old trench is left for a drain, which is quite useful, as gravelly, stony land is usually very moist—and the bushes and briars which always cluster around a fence can be extirpated. The work, too, can be prosecuted more rapidly. He was disposed to favor stone fences because they are durable, and easily kept in repair.

In setting post fences he urged strongly the benefits of charring the butt-ends of the posts before setting them. He had on his place a post fence which had been standing for 18 years, the posts having been charred. Last year, he had to re-set some of them on account of their being thrown over by the frost, and found them perfectly sound. Charring is a great preservative against decay. Posts should be set 4½ or 5 feet into the ground. For something more permanent, he thought wire fence would be very cheap, and might be made very strong. He would suggest to farmers, whether, on gravelly soil, it would not be the cheapest that could be put up.

In regard to hedges, Mr. French said that in France and England they were fast losing favor, and were being removed, as it is found that they impoverish the soil, drawing a great deal of fertilizing matter from it through their roots. If a person desires a screen around his buildings, there is nothing better of this sort than buck-thorn or arbor vitæ—but neither can be said to be safe against cattle, though they may be combined with a wire fence and rendered safe. Mr. French thought farmers might add a great deal to the beauty of their farms, without extra expense, by a little care in setting their fences with regularity and a regard to the rules of taste.

MR. PROCTOR, of Danvers, said that the matter of subdividing lands in New England was at present very much determined by accident, which should not be the case. He conceived the design of fences to be the enclosure of feeding land, and the protection of cultivated land from cattle. If a farmer has no feeding land, fences will be an incumbrance in the farming operations, as plowing, for instance. He also considered it a great advantage to have the buildings in the centre of a farm, without regard to highways, because it saves time in teaming manure, going to the various parts of the farm, &c. Mr. Proctor thought a great deal of money was lost on stone fences, although he was aware of their great popularity. They may be of some service in retaining the manures on land, and fruit trees perhaps do better alongside of them; but numerous fences are so inconvenient in doing farm work, there are so many bars to take down and put up, &c., that he believed the disadvantages offset those benefits, and it was better to have a farm all in one lot.

Mr. Proctor took occasion to dissent from the extravagant views (as he deemed them) which have been advanced at these meetings in regard to the value of guano as a manure. He was not satisfied as to its efficacy in all cases. He knew of an instance where, in a dry season, it proved a failure in producing a corn crop, while ordinary manure was completely successful. It may do well at the South, as has been related, but it does not follow that it will do well here. He was inclined to call it *fancy* farming.

Prof. NASH, of Amherst College, was of the opinion that if lands were stony it would be well to cut them up into small lots; but on lands easily cultivated and level, the policy of the farmer should be to have as few fences as possible. They should be strong, and able to resist the attempts of cattle. Numerous fences are expensive, and farmers cannot support them. In fencing, reference should be had to duration and expense, along with the beautiful. It can, perhaps, as easily be made handsomely, as awkwardly,—we should endeavor to combine the beautiful with the useful.

Mr. SMITH, of Hadley, said that in his part of the State (the Connecticut valley) the lands were scarcely subdivided at all, even among different owners, owing to their being held in small lots, and the high cost of fencing materials; they cannot afford to fence their lands, and a great part of them are held in common. This is on intervale lands. He considered division fences inconvenient, besides lessening the amount of productive land. Cannot get a crop within a rod of the fence. Pasture lands alone are considered necessary to be enclosed by the farmers in his vicinity.

Mr. FLINT, Secretary of the Board of Agriculture, considered the question one of mere economy, but what was best, he was not prepared to say. He had seen a good deal of wire fencing,

and detailed a plan for tightening the wires. It was to have a small roller, with three holes bored in it, one in the middle and one in each end, which, after the wires are drawn through the holes in the posts, should be placed against the second post, and the wire passed through the hole in the centre; then by means of pins placed in the holes at the ends, the roller can be turned, and the desired amount of tension obtained. There is one objection to wire fences. He had known two or three valuable horses to be killed by them.—Horses, when let out in the spring, are extremely prone to gambol, and in racing from one end of a field to the other, are apt to run with great force, against a wire fence, from not observing it, and are instantly killed. He did not know of any preventive, except to lead them round and let them know that there is something for them to look out for.

Mr. HOWARD, of the *Boston Cultivator*, submitted some remarks in relation to wire fences. He knew of no better mode of constructing them than that described by Mr. Flint. They can be built with very long fastenings, trees forming the best posts; he knew of a line of wire fence where the fastenings were half a mile apart. It is important to have good wire. No. 8 is as small as should be used. Annealed wire is not proper, because the process of annealing renders it more liable to corrode, and it has been proved by experiment that it will support less weight than any other kind. He had known wire fence which had been up four years, and last season was perfectly sound.

Mr. CLARK, of Waltham, thought the subject resolved itself into the character of the lands of the farm to be fenced. If part is fit only for pasturage, it should be enclosed; if arable, it should be thrown into one lot. Where stones abound, it is good policy, perhaps, to make them into walks.

The chairman, Mr. BROOKS, inquired whether 100 acres of pasture land, divided into 10 acre lots, would not furnish more feed than if thrown together.

Prof. NASH replied, that he thought it would. Better feed can be secured, and it can also be reserved if desired.

Mr. FRENCH thought the system might operate very well for a couple of months in the first part of the season, but after that time, he thought it would be full as advantageous to throw the pastures together.

GUANO.

Mr. BROOKS, of Princeton, made an excellent speech at the State House, on the subject of manures, while that question was under discussion. He thought guano a valuable fertilizer, and may be used, under certain circumstances, with advantage. But the farmer, he said, *must place his chief dependence upon the natural resources of the farm for its fertilizing agents.* He had a farm of fifty acres left him, upon which, for a life-time, had been kept six cows, a pair of oxen and a horse. This, under the old practice, was the extent of its capacity. He had added one hundred acres of land, and was feeding from the whole forty-one head of cattle. That is, he has added two proportions of land and more than six proportions of stock! and had paid for the whole, from the profits of the land. He believed that 25 per cent. of all crops may be sold from the farm annually, and the farm still grow better; and that from such sales a nett gain of from 10 to 15 per cent. may be realized, yearly. Mr. BROOK's practice sustains his opinion.

But we intended to speak more particularly of guano. We think well of it, and use it, moderately. There is danger, however, that our people will get into a *furor* about it, and neglect the true sources of gain on their own lands. We hope to see no *hen*, or *pig*, or *multicaulis* fever on this subject, but that every cultivator will improve every possible way to swell his domestic manure heaps *first*, and then, as an auxiliary, he may carefully test the virtues of guano.

AGRICULTURAL EDUCATION.

Collegiate education, as hitherto directed, can hardly be said to have been available to farmers' sons, except as they were about to leave the employment of their fathers for other callings. No fault should, on this account, be ascribed to our colleges. They were established mainly for the purpose of educating young men for the learned professions. They have done this; have done it well; are still doing it faithfully and impartially, taking young men from all the walks of life, as well from the farm as otherwhere, and training them for higher fields of usefulness.

But while farmers, in common with all others, can educate their sons *for leaving the farm*, does not the public good require that they should also have the means of educating them *to stay on the farm?* Has not a want of this kind sprung up in the progress of our institutions? Is it not deeply felt by the friends of enlightened agriculture? and would not our colleges do well to meet it promptly? As they have libraries, cabinets, and courses of lectures already established, they could meet the exigency altogether more economically than it could be provided for by the establishment of institutions exclusively for that purpose.

The plan should embrace instruction in *Analytical Chemistry* in *Natural History*, and in *Theoretical and Practical Agriculture.* Instruction could be given in the first two, in connection with the regular collegiate course, without increased expense. The students in agriculture should be under the direction of an instructor appointed for that specific purpose. He should be at once scientific and practical—capable on the one hand of directing their studies, and on the other of showing them the best samples of all kinds of farm-work, done by himself. A portion, at least, of his lectures, should be in the open field, with hoe,

spade, or scythe in hand. He should be able to do anything that is to be done on a farm, and to give a reason for its being done in the right way. And he should be an economist, capable of showing how the cost of production may be diminished, and how crops may be expended so as to give the best return, both in pecuniary and in fertilizing value.

The employment of such a man would add something to the annual expenditures of a college. No other part of the arrangement would. Lectures on botany, chemistry, geology, natural philosophy, vegetable physiology, &c., can be given as cheaply to many as to few. It costs no more to keep up cabinets in mineralogy, geology and natural history for five hundred students, than for one hundred. The same is true of nearly every appliance for collegiate education. The economy of uniting agricultural departments with colleges already established, is a matter of great importance. If it is the duty of a State to educate its youth, it is no less a duty to educate them with a reasonable regard to economy. Funds for this purpose, whether from public or private munificence, should be applied as advantageously as possible towards the accomplishment of the object. For these reasons I have supposed that our colleges would do a work of immense public utility by providing for instruction in agriculture. There need be no rivalry between them, unless it be the rivalry of doing good. If each can furnish agricultural instruction for its own region cheaper than can be furnished otherwise, why should we not rejoice if the others can do the like for their locations respectively? It is infinitely better to sustain the institutions we have, than to create new ones to languish for want of support. Let the colleges of our country provide for agricultural education in their respective regions, and their own interests, if it be possible for them to have interests distinct from those of the public, will not fail to be advanced.

Why should not the young man, who can be spared from the farm for a single year, enjoy as rich privileges for that time, as those who pursue a prolonged academical course? Why should not he be educated *for his profession* as well as they for theirs? His profession is not unimportant; it is not more easily learned than all others; it requires a large amount of knowledge; and the very fact that, as a general rule, young men who are to become farmers, will take but a short course of previous study, seems to be a good reason why the best possible means should be furnished to them, that they may learn much in little time. Such means should be furnished at so cheap a rate, that the son of the poorest farmer in the country need not be debarred; and our established colleges should furnish them, because they can do it at less than half the expense of supporting separate institutions.—*Journal.*

CLOUDY SEASON.

Every part of the globe has certain seasons during the year, which come constantly, and regularly, at certain periods of the year; and which, although variable in their daily characteristics, have nevertheless a general character, which is somewhat uniform from year to year, and distinguishes them from the seasons of other periods. Here, in our own latitude, we have the winter season—the spring season—the summer season—and the autumnal season.

In other parts of the world, they have rainy seasons, when, although it does not pour down all the time, yet there is more or less rain almost every day, and this is alternated with the dry season, in which no rain falls. In some latitudes, the wind sets in, and blows with little or no variation for months in one direction only.

In Peru they have a cloudy season, Humboldt says, that for several months, a thick mist obscures the firmament. Not a planet, not the most brilliant stars of the southern hemisphere, neither Canopus nor the Southern Cross, are visible. It is frequently almost impossible to distinguish the position of the moon.

If by chance, the outline of the sun's disk be visible during the day, it appears devoid of rays, as if seen through colored glasses, being generally of a yellowish red, sometimes of a white, and occasionally even of a bluish color. The mariner, driven onward by the cold, south current of the sea, is unable to recognize the shores, and in the absence of all observations of latitude, sails past the harbor's mouth which he desired to enter.

Except the usual variations of spring, summer, fall and winter, our latitude is not subject to such periodical onsets of rain, or trade winds, or misty and cloudy weather. It is as a general thing very clear, and with the exception of occasional clouds, and storms of comparatively short duration, we have no cloudy seasons, nor misty seasons, nor rainy seasons. The light of the sun, and moon, and stars, shines for the most part unobstructed, and with beautiful brilliancy. This is as conducive to health, as it is to the pleasure of the body, and although we complain of occasional cold winters, and backward seasons, these blessings alone are sufficient to counterbalance all evils of that kind. The health of both the animal and vegetable kingdom is intimately connected with light. —*Maine Farmer.*

LOOK AT YOUR BEES.

If you desire early and strong young swarms of bees, you must see that they have plenty of honey during the latter part of March and up to the middle of April. *But honey alone is not sufficient.* The bees intend to lay up an abundant supply of pollen, or bee-bread, but if their store is short, and the season is backward, they are unable to find it in sufficient quantities for their own use and that of their young, whose nourishment chiefly depends upon it.

On the 23d and 24th of March, the days being clear and warm, we placed West India honey and loaf sugar melted together, before our bees, by setting a feeding box containing the mixture on a flour barrel, 20 feet from the hives. The feeding was suggested because one or two of the swarms were weak. Five swarms carried away a pint of the mixture in a few hours. The next day the box was replenished, and at the same time a tea-cup full of flour was laid on a shingle near the barrel; when the bees very soon forsook the honey and carried away the whole of the flour, and did the

same with an equal amount on the 25th. On the 26th, another cup full was supplied in the afternoon. During the succeeding night a gentle rain wet the surface of the flour, which was dried by the winds into a hard crust before 9 o'clock on the morning of the 27th. The bees came to it before ten, but they were puzzled to take it up as they had done, and it became a matter of curiosity to see what course they would pursue. Their instincts, however, did not fail them. Ranged side by side along the base of the mound, they soon perforated the crust, and long before night the excavation was nearly completed, and most of the flour carried away.

Bee-bread, or pollen, is collected and packed down for future use, and often covered with wax. Flour is a similar substance, and answers their purpose pretty well, therefore supply it.

For the New England Farmer.

BIRDS OF NEW ENGLAND.

THEIR PAST AND PRESENT HISTORY....No. 8.

BY S. P. FOWLER.

The late Alexander Wilson, the author of the "American Ornithology," was a disbeliever in the torpidity of swallows in the winter, and treats the whole subject with ridicule. In his history of our birds, he copies Doct. Williams's account of the chimney swallows, found torpid in hollow trees, in the towns of Danby and Bridport, as before written, but wholly omits to notice the one from Mr. Ramsey, from Hubbardston, so conclusive. He says, "I cannot, in the cases cited, see any sufficient cause for the belief of the torpidity of swallows. The birds were seen to pass out on the first of May, or in the spring, when the leaves began to appear on the trees, and, about the middle of September, they were seen entering the tree for the last time; but there is no information here, of their being seen at any time during winter, either within or around the tree." This is exceedingly unfair, on the part of Mr. Wilson, for it will be seen in the account given by Mr. Ramsey, from Hubbardston, that swallows were seen by him in March, when there was a deep snow upon the ground, and that the birds were actually examined, when inside the tree, and some of them had the appearance of being in a torpid state. Mr. Wilson admits, that the chimney swallow usually arrives in May from the south, and departs in September. Now I would inquire, how came these birds to be found in a hollow tree in Vermont, in a partially torpid state, in the month of March, with a deep snow upon the ground, if they had not hibernated there during the winter? Would they have migrated from the south, so early in the spring? Mr. Wilson, when writing upon the subject of the torpidity of swallows in winter, says, "Away with such absurdities! they are unworthy of a serious refutation. I should be pleased to meet with a man, who has been personally more conversant with birds, *than myself*, who has followed them in their wide and devious routes,—studied their various manners—mingled with, and marked their peculiarities, more than *I have done;* yet the miracle of a resuscitated swallow, in the depth of winter, from the bottom of a mill-pond, is, I confess, a phenomenon in ornithology, that I have never met with." Now, in point of fact, Mr. Wilson's knowledge of our birds, extended only through a period of nine years—to wit, from 1804 to his death, in 1813. And we strongly suspect he met a man, who was as conversant with our birds as himself, when he saw for the first time, in March, 1810, at Louisville, in Kentucky, the author of the Birds of America. Mr. Audubon's account of this interview and Mr. Wilson's subsequent notice of it, may be seen in the 1st vol. of Audubon's Birds, page 437. And he certainly "marked the peculiarities of our birds, when he made the discovery and described the Red Owl as a distinct species, since all ornitholgists subsequent to his time have failed to distinguish it, and have ascertained that the Red Owl is no other than the Mottled Owl, in his juvenile years. We should think from reading Wilson's Life by Mr. Ord, that his biographer supposed that he would probably have become, had he have lived, a reformer in the Natural History of our country. And that all stories published in our Philosophical and Natural History transactions and Institutes, such as the torpidity of swallows, toads found deeply imbedded in the earth or rocks, the Gloucester Sea Serpent, &c., and all gross fictions [as he was pleased to call them] palmed upon mankind, the Paisley weaver was destined to expose. Doct. Barton, in a letter to the editor of the *Philosophical Magazine*, when alluding to the subject of the torpidity of swallows, says, "I have, at this time, in the press, a memoir on the migration and torpidity of these birds. I am confident that I shall be able to convince every candid philosopher, that great numbers of swallows, of different species, do occasionally pass into a state of torpidity, more or less profound. I do not suppose that all the swallows of North America become torpid. It is my present opinion, and it was my opinion when I published the 'Fragments' in 1799, that the swallows, in general, are migratory birds. But subsequent and *very extensive* inquiries have convinced me, that the instances of torpid swallows are much more frequent than I formerly supposed they were; and that there are two species of the genus Hirundo, which are peculiarly disposed to pass the brumal season in the cavities of rocks, in the hollows of trees, and in other similar situations, where they are often found in a *soporose* state. These species are the *Hirundo riparia*, or sand swallow; and the *H. pelasgia*, which we call chimney swallow. There is no fact in ornithology better established than *the fact* of the occasional torpidity of these two species of Hirundo!"

From some cause not known, Doct. Barton never published, as he had promised, his "Memoir on the Migration and Torpidity of Swallows," and from this circumstance, Mr. Ord, the biographer of Alexander Wilson, infers that the Doctor was deterred from doing it, in consequence of the great light shed upon the vexed subject of the torpidity of swallows, by the author of "The American Ornithology;" and that he manifested great discretion in suppressing it. We have reason to suppose Mr. Wilson was not familiar with the habits of our birds, as they are seen in New England. I have not been able to learn, that he ever visited the north, with a single

view of examining its birds. He set out, he says, in one of his letters to Mr. Bartram, under date of Sept. 21st, 1808, for the Eastern States, in search of birds and subscribers, but how many birds he found the last of September, in New England, he does not inform us. The whole time spent by Mr. Wilson at the north, in the autumn of 1808, was less than two months In his letters, sent home to his friends during this tour, he expresses the greatest contempt of the climate and habits of the people of New England; he says, "Lawyers swarm in every town, like locusts; almost every door has the word *Office* painted over it, which, like the web of a spider, points out the place, where the spoiler lurks for his prey. There is little or no improvement in agriculture; in fifty miles I did not observe a single grain or stubble field, though the country has been cleared and settled these one hundred and fifty years. In short, the *steady habits of a great portion* of the inhabitants of those parts of New England through which I passed, seem to be laziness and law bickerings. My journey through almost the whole of New England, has lowered the Yankees in my esteem. Except a few neat academies, I found their school-houses equally ruinous and deserted with ours; fields covered with stones; stone fences; scrubby oaks, and pine trees; wretched orchards; scarcely one grain field in twenty miles; the taverns along the road dirty, and filled with loungers, brawling about law suits and politicks; the people snappish, and extortioners, lazy, and two hundred years behind the Pennsylvanians, in Agricultural improvements. Mr. Wilson found Boston so filthy, that he would not disgust his friend with a description of it. The draymen in shouting to their horses, made such a hideous howling in the streets of Boston, at every corner, that he was reminded of some miserable wretch, expiring on the wheel." Upon reading this account, we were led to think that if Mr. Wilson was not better acquainted with the habits of New England birds than he was of the character of the people, not much reliance should be placed on his opinion, in regard to the torpidity of swallows. For they are chiefly, if not wholly, to be found at the North. It would seem Mr. Audubon's mind was not settled, in regard to this subject. For we find in his 1st vol. of the "Birds of America," page 179, when speaking of the Cliff Swallow, where he says, "I embraced every opportunity of examining their habits, carefully noted their arrival and disappearance, and recorded every fact connected with their history, being extremely desirous of settling the long-agitated question, respecting the migration or supposed torpidity of swallows."

In the spring of 1836, the writer of this article witnessed what he has supposed to be an instance of the torpidity of the swallow. By referring to a diary kept that year, I find the date of this occurence the 10th of April. It was upon a fine spring morning, succeeding a pleasant day, I discovered about sunrise two White Bellied Swallows [the *Hirundo viridis* of Wilson] fluttering on the ground, and unable to fly. They were easily caught, and examined, as it was my impression at the time, they had been injured by a cat. Upon examination I was satisfied this was not the case. They were wet with mud and water, and after being wiped dry, they were taken into the house, and placed on a window in the sun. In a few hours they recovered their consciousness, and flew out of the window into the open air. In the vicinity where these birds were found, was a pond filled with mud and water. The mud found upon these swallows was not the black dirt of the garden, but was a slimy mud. We have since seen Bank Swallows, under circumstances that have led us to suppose they were in a partial state of torpidity. Such as sitting on willow twigs, by the side of rivers and streams, a few inches from the water; at one time as early in the spring as the 25th day of March. Upon the whole, I am inclined to the belief that the subject of the torpidity of the swallow is still an open one, and not by any means so effectually closed, as Mr. Wilson and some others had supposed. S. P. P.

Danversport, Jan. 10th, 1853.

[TO BE CONTINUED.]

REMARKS ON BUDDING AND GRAFTING.

Buds should always be set before the stock or bud has ceased to grow for the season. In setting pears in pear stocks, it is important to commence earlier than with apples, as the former do not grow so long as the latter. Plum and cherry stocks also stop growing early, unless the development is kept up by stimulating manure, and careful tillage. Apple trees, if healthy and in a good growing condition, may be budded late in August. Peach trees continue to grow even longer than apple trees, and it is never advisable to bud them early. In all trees, when budded, there should be sufficient sap to cause the bark to peel freely. Of the proper time for performing this operation in the several kinds of trees above mentioned, the ready peeling of the bark is the only criterion to be relied on. In grafting, it is frequently necessary for those who are engaged extensively in the business, to preserve scions for some months before the time arrives for inserting them. For this purpose, no material has yet been discovered superior to damp sawdust. In regard to its efficiency the editor of the *Albany Cultivator* says:

"The mode first suggested to us by T. G. YEOMANS, of Walworth, N. Y., of preserving the scions of fruit trees in moist sawdust, has proved superior to any other. It is better than damp moss, in the facility with which the scion may be perfectly imbedded in it, leaving no interstices; and it excels moist, sand it being lighter, more spungy, and entirely free from a grit which may injure a knife. We have without difficulty preserved scions, which were cut in the summer for budding, till the following spring, and inserted them as grafts with entire success; and we have kept winter cut grafts till midsummer perfectly fresh, and employed them successfully in budding. A bushel of sawdust will retain its moisture for many weeks nearly unaltered, but water must not be applied too copiously or water soaking and decay will be the rusult. The north side of a building or a cool cellar is the best place."

In *Kenrick's Work* on *Orcharding*, we have the following remarks on INNOCULATING;

"Innoculating is the operation of transferring any desirable variety of tree upon the stock of an inferior or wild variety. The operation is principally practised on small trees, and only during the time the sap flows freely, and chiefly during the months of August and September. Select for the buds the ripest young twigs of the present year, and cut off the leaves, leaving the footstalk entire. Having selected a smooth place in the stock, make a perpendicular slit downward, quite through the bark, an inch or a little more in length. Make a cross cut at the top of this slit quite through to the wood, a little slanting downward; next with the ivory haft of the budding knife, raise the bark on both sides from top to bottom, being very careful not to injure in the least the cambium or sap wood. Next and with expedition proceed to take off a bud; this is effected by entering the knife a little more than half an inch below the bud or eye, quite through the bark, and separating the bark from the wood to the same distance above the eye, always leaving a very thin slip of wood of about one-third of the length of the bud, this thin slip of wood occupies the middle section of its length. The bud is to be inserted in the stock to the bottom of the slit, and between the bark and wood: and the top of the bud being squared even with the cross cut, every part except the eye, is firmly bound and covered with strong wet bass string or matting."

For the New England Farmer.

MANURES AGAIN.

Mr. Editor:—Your very pleasant correspondent, B., seems to doubt the correctness of my criticism upon his fireside talk. Now, sir, I would not set myself up as an instructor of others, nor would I say a word that looks like controversy with so courteous a writer, nor would I cavil about words or forms of expression. Perhaps I did not make myself clearly understood. My object was to inquire whether the nutriment which vegetables derive from the soil may not, *nearly all*, be returned to the soil, as food for future crops, *after* the vegetables have been used as food for animals. I believe it is generally conceded that vegetables derive their carbon from the atmosphere, and their oxygen and hydrogen from water. So that as these elements are not derived from the soil, they need not be taken into the account in this inquiry.

But, notwithstanding the apparent Irishism contained in the remark that follows my query, yet I see no reason to doubt the correctness of the general proposition contained in the query itself, which was—"If the manure, liquid and solid, produced by feeding on the estover of an acre would not return to the ground nearly the value it has given out, of mineral matter?"

Suppose "the cow lays in her bone and milk from the lime of the cornstalk?" In the adult animal, do not the excretions go on *pari passu*, with the secretions? Are not the particles of old bone, muscle, hair, &c., carried off, as fast as new particles are deposited? At the end of the year, is there more bone and other tissues than there were at the beginning? After the milk has passed through the calf, the pig, or the human stomach, does not its lime find its way back to the soil? And do not the bones, hair, wool, muscle, &c., of the [illegible]h the same destination at last? Have not ground woolen rags and bone dust become important articles of commerce because of their value as fertilizers?

As to the loss of mineral matter by the urine, this will not take place to any great extent—when the stable has a proper cellar furnished with suitable materials for absorbing this excrement. Nor will there be much loss even in the yard, when this is properly provided with soil and carbonaceous matters designed to absorb it. Evaporation is supposed to leave the mineral matter mostly behind. So that the loss of mineral matters, except the small amount of potash and soda carried off in the perspiration, really amounts to very little, and even the potash and soda of the perspiration mostly dries upon the skin and hair, and is rubbed off by the card and brush. But it seems B. did not say "mineral matters," but "fertilizing matter," and he refers to the carbon, oxygen, hydrogen and nitrogen contained in the cornstalk. The constituents of vegetables may be divided into three classes. 1st, The non-nitrogenous, as woody fibre, sugar, starch, fat, oil, &c. 2d, The nitrogenous, as albumen gluten, caseine &c.. And 3d. The mineral, as lime, silex, potash, sulphur, &c. Most vegetables contain but a small amount of the 2d class, and what they do contain, is chiefly in their seeds. I have never seen a chemical analysis of corn or the corn stalk. But wheat straw contains 960 parts of organic matter in a thousand, and only 4 parts of nitrogen. Oat straw contains 970 parts of organic matter, and only 3 of nitrogen. Wheat itself contains 20 parts of nitrogenous matter in a hundred. Oats contain 14. If we may judge at all from analogy, we may suppose the corn stalk to consist of woody fibre, sugar, starch, lime, silex, potash, and traces of nitrogen and sulphur. But woody fibre, sugar and starch consist wholly of carbon, oxygen and hydrogen, and may be converted the one into the other, by changing the proportion of their elements. Probably cornstalks contain some 950 or 60 parts in 1000 of organic matter, mostly carbon. But carbon has of itself but little value as a manure. Its chief value is as a retainer of ammonia, for which it has a strong affinity, and as a vehicle by which this, and mineral matters, are conveyed to the roots of plants.

Some have denied that carbon is ever taken up by the roots of plants. It certainly never is, except in the form of carbonic acid dissolved in water, and probably in that form only in small quantity, except when the roots are stimulated by nitrogen and mineral substances. The carbon used in building up the frame work of plants and trees is mostly obtained from the carbonic acid contained in the atmosphere, by means of the leaves. By a curious chemical process in the leaf, the carbon is separated from the oxygen, and each element is appropriated to the use for which it is wanted. Hydrogen and oxygen are also obtained by the decomposition of water in the leaf, to which it is conveyed from the soil—and by which it is absorbed along with carbonic acid, from the atmosphere. From all which it results that the chief value of the corn stalk as a manure, resides in the mineral matter it contains. If B. would enrich his soil, and thus secure a large crop by burying his cornstalks in the ground, he must, to use another Irishism, bury the corn along with them, and then he will get a tolerable amount of nitrogen—the

very element in which the chief value of animal manure consists. Indeed, European farmers are using rape seed and oil cake as a manure, because they are rich in this element. The peculiar value of animal manures, I take it, consists in the nitrogen they contain. Their mineral elements are indeed valuable. But these may be obtained at a cheaper rate, from other sources.

I have not time, had I the ability, nor will you give me space, Mr. Editor, to go more fully into this copious subject; and I will close by saying that just in proportion as friend B. can make his farm furnish nutriment to his animals to such an extent, that *they* shall afford nutriment to *successively increasing crops*, will it prove a "mine of wealth" to him. But if he has to raise one crop to feed his animals, and another to feed his crops, he had better dig in some other mine.

In order that land may maintain itself at a high degree of productiveness, it must yield abundant, nay luxuriant crops. It is only such crops that can return to it the "fertilizing matter" necessary to keep it at the maximum point of fertility. This I suppose to be the standard at which every farmer should aim, and just in proportion as he approaches it, will his farm prove to him a mine of wealth. Permit me to add a short extract or two from Stockhardt's Field Lectures, a book which I should be glad to see in the hands of every farmer who would understand the principles of chemical science, as they apply to the processes of agriculture.

"There are probably few farms on which natural manure is produced in such plentiful quantity as to suffice for perfectly manuring their surface. As long as a farm has not *reached the highest point of cultivation*, every means must be pronounced acceptable, which puts the farmer in a position to provide his fields with more liberal dressing than he is able to give them from his own supply of home produced natural manure. Whoever seeks to arrive *quickly* at this state of cultivation, must make extensive use of those auxiliary or artificial manures, that are now offered him by commerce. For if by the agency of artificial manures, fields are speedily brought into a state of greater productiveness, *more straw and fodder* will also be produced; *and by their assistance the stock can be so increased and the supply of natural manure so enlarged, that the importation of artificial manures is no longer necessary.*" J. R.

For the New England Farmer.

GRAFTING ON THE THORN.

BY C. GOODRICH.

I have lately seen an article in your paper recommending the common New England thorn tree, as stocks for pears. As the writer merely gives it as a matter of opinion, rather than experience, it may lead many to try experiments where disappointments are sure to follow.

The whole family of thorns, Mountain Ash, and Shadberry, I believe will *generally* prove worthless for *dwarf* pears; they *may* occasionally succeed, but each one grown will cost the owner more than a dozen good trees on pear stocks.

Some fifteen years since, I procured two or three dozen thorn trees, planted them with care, and the next season grafted with pears; about one-half grew, which had a sickly existence a few years and died.

My next experiment was with Shadberry, with no better success. In 1851, I planted 56 Mountain Ash trees—averaging 1½ inches in diameter—and grafted near the ground with some eight varieties of pears. All grew very finely, but in September, they began to appear sickly, which so increased, that in 1852 all were dug out and thrown away. I last year purchased the largest nursery on the east side of Lake Champlain, some twenty miles from Burlington. Among the stock were twenty thousand pear seedlings and some thousands of grafted trees of all ages and sizes. I noticed a number of scraggy thorns, and on inquiry the intelligent owner told me he had for ten years tried to raise pear trees on thorn stocks, had tried more than one hundred, but had not succeeded in raising but one tree, which he showed me. This had a sickly growth; I transferred it to my garden last spring but it has gone the way of all others.

On large *vigorous* trees, and grafted in the tops, pears will grow well on the Thorn, Mountain Ash, or Shadberry, for a few years. I once grafted a thorn tree of this character, and the fourth year picked four bushels of pears from it. All large trees of this class, in rich soils, are valuable for grafting with the pear—but for "dwarfs," or standards, grafted when young, thorn stocks generally, are worse than useless. The Mountain Ash and Shadberry, I think of the same general character as the thorn—but have not seen experiments enough to give an opinion of their value for stocks for pears.

It is said that the pear will graft well on the apple, but "outgrows" it. This is all a mistake. The sap flows freely from the apple to the pear and produces a vigorous growth, but not returning freely, the apple stock is dwarfed. If one wishes to try the experiment, he will find, by grafting apples and pears on the same tree, that although the pears at first will outgrow the apples, the limbs on which apples are grafted will grow four times as fast as those grafted with pears. But few varieties of pears will grow on apple stocks. I have tried many sorts, but never had much success with but one. The old Summer Bon Chretien, (Good Christian,) a very irregular scraggy grower, grows as readily on the apple, as pear stocks, and bears well a few years on old trees, or until the limbs on which they are grafted become too much dwarfed.

If any one can give any successful experiments of raising trees on thorn stocks, I shall be glad to see them; but until I see practical demonstration, will caution all of depending on the thorn as a stock for pears.

Burlington, Vt.

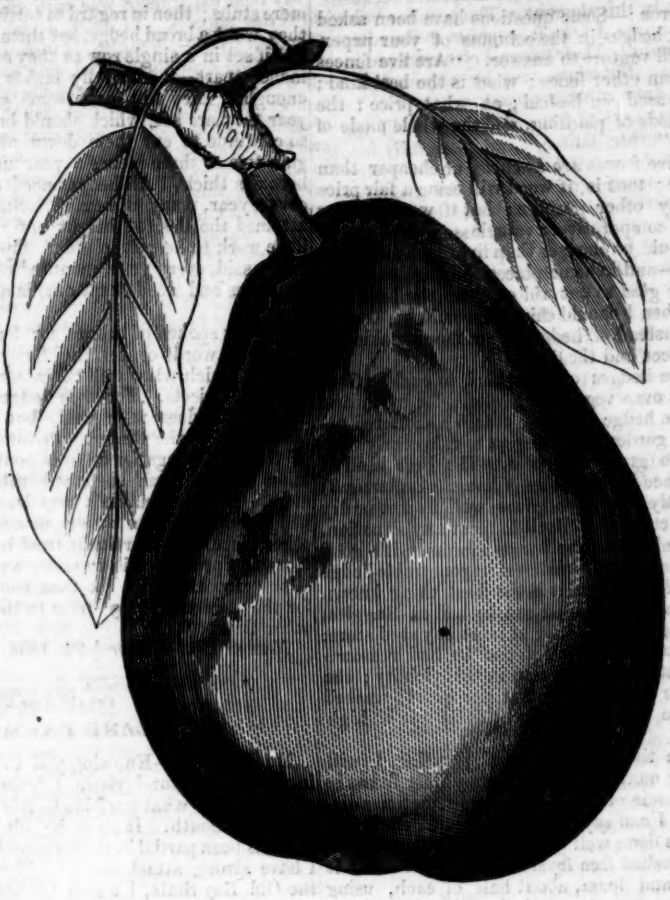
For the New England Farmer.

A QUESTION FOR THE CURIOUS.

SIR:—I have a small pear tree in my garden, which the last season bore fruit of good quality, but not pears, although nourished and matured by the sap of the tree, and on the wood produced by the pear graft or bud, nor were there pears in any part of the tree which came to maturity, what fruit was it? HORTICULTURIST.

Groton, 1853.

REMARKS.—Well, we rather guess 'twas *a* pear!



BEURRE DE ANJOU.

The above beautiful portrait was taken from a pear furnished us by the Hon. MARSHALL P. WILDER, from his garden in Dorchester, and is a faithful representation of the fruit, leaves, and a portion of the branch upon which it hung.

Synonym—Ne plus Meuris of the German and French Catalogue.

Size—Large.

Form—Obovate, obtuse, pyriform, outline and surface often slightly irregular.

Stem—Short, thick, inserted without much depression.

Calyx—Moderately sunk in small uneven basin.

Skin—Greenish-yellow, coarsely dotted, russeted at the stem and eye, and with a brownish red cheek on the sunny side.

Flesh—Yellowish white, very juicy, melting and buttery.

Flavor—Rich sub-acid, with a delicious aroma resembling that of the Brown Beurre.

Season—November to January.

Class—"*Best.*"

Tree—Hardy and productive either on the pear or quince stock.

The Beurre de Anjou was introduced by MARSHALL P. WILDER, from Europe, about ten years ago. Mr. W. considers this variety one of his most valuable acquisitions, and worthy of general dissemination.

NORTHERN SPY APPLE.—D. TABER, in the same paper says the "past winter was one of unusual severity to fruit trees in the nursery, destroying many of our Baldwins and other varieties—and the Northern Spy, standing in rows by their side within four feet of Baldwins, remained almost entirely without injury. They possess one advantage over any other kind with which I am acquainted; that is, being about ten days later in putting out in the spring, making the risk much less of injury from late frosts."

For the New England Farmer.

LIVE FENCES.

MR. EDITOR:—Some questions have been asked concerning hedges in the columns of your paper, which I will venture to answer. "Are live fences cheaper than other fence; what is the best kind; where the seed can be had; at what price; the time and mode of planting, and the whole mode of operation?"

I think live fences are as cheap or cheaper than wood fence; that is, if wood will bring a fair price cut for any other purpose; but if wood is very plenty and comparatively valueless, then I should think it would be cheaper than live fence; if stones are plenty—and in some places they are so plenty that we are glad to get rid of them the best way we can,—then I should think it would be best to use stone instead of hedge: I am now speaking of division fences and the like.

Many use hedges of some kind to enclose front gardens, or even vegetable gardens, for by the use of evergreen hedge, we may obtain a sheltered position for a garden, enabling us to raise early vegetables with greater success. The best kind of plant for fence is Buckthorn, (*Rhamus catharticus*) it is perfectly hardy, and does well in wet or dry land, will accomodate itself to most any situation, and is entirely free from borers; forms, with good care, in a few years, an almost impenetrable hedge and altogether I think it is the best thing known for live fences. The seed can be had at Ruggles, Nourse, Mason & Co.'s, or at most any seed store; or the plants of suitable size can be had reasonable of any of the nurserymen in this vicinity; the price for the seed is one dollar per quart, washed out separate from the pulp; this is not a high price.

As for the time and mode of planting, I will give you my method, though it may differ from the practice of some others;—"doctors sometimes disagree"—all I can say is that the plan I shall recommend has done well with me. I take my seed after it is washed free from the pulp, and mix it with sand and loam, about half of each, using enough to prevent the seed from heating; after having thus mixed them, put them into a tub or box, and place them away in the barn-cellar or some such place, looking out that the mice don't get at, or water run in, to rot them. In the spring prepare the ground by first spreading on manure, then plow it well, that it may be *well pulverized*, after which strike a shallow furrow and manure again slightly in the drills, mixing it up with the soil, and then sow the seed as peas are sown, not too thick, for the plants will not grow so stout; this should be done as soon as the ground is dry enough to work well. It is unnecessary to say that they should be kept entirely free from weeds. Should they make good growth, many of them would do to set up in hedge the next spring, but it is generally best to let them grow *two years* in the seed bed. In order to have a good hedge of Buckthorn—for of that I have been speaking—it is necessary first to prepare your trench where your plants are to be set, by digging it from three to four feet wide, and not less than two feet deep, that is if the soil is not very good,—and filling it up with good loam, with a liberal quantity of well decomposed manure compost. This is necessary in setting a hedge of any kind, if you want it to flourish.

The Buckthorn plants, before setting, should be cut down to within two or three inches of the root, mere stubs; then in regard to setting, some, where they want a broad hedge, set them in double rows, but if set in a single row as they ought to be, four inches apart—it generally makes a hedge thick enough. They will make some growth the first year they are set, which should be cut down, and so continue to cut them down allowing them to gain two or three inches a year until the bottom becomes thick. All hedges need clipping at least *once* a year, many clip *twice*. After the hedge has attained the desired height and shape, it is but little work to keep it in order, clipped, as I have before said, every year, manured occasionally, and the grass and weeds kept out, is all that is necessary.

Having spoken of hedges for fence, I will now say a few words concerning fancy or ornamental hedges, which when well taken care of, are really beautiful objects. For such hedges, Arborvitæ is much used, does very well, but is liable to be killed out by the winter. Privet or Prim is one of the best things for an ornamental hedge that I know of, and I am surprised that it is not used more. Hemlock makes a very dense and beautiful hedge, admirable for screens around a garden and other places. Arborvitæ is used in the same way. Norway Spruce is said to make a good hedge, but is now too expensive for that use. But enough for the present,—may refer to the subject some other time.

J. F. C. H.

Newton Centre, March 24, 1853.

For the New England Farmer.

MARYLAND FARMING.

MR. FARMER:—Knowing you to be "national" in your agricultural views, I trust you will take an interest in what pertains to this favored region, the sunny South. It must be admitted that nature has been partial in the distribution of her gifts. I have strong attachments to New England,—to the Old Bay State, I would not exchange her for any State, or nation, I have yet seen. No, not for all put together. Yet Massachusetts owes her wealth, her institutions, and her peaceful, happy hours, not to her climate, nor to her soil; but to the character of her population, which secures wealth—the comforts and luxuries of life—which acquires knowledge, and makes it available in every apartment of human industry, in spite of natural disadvantages. Yes, the Yankee not only compels the rocky and naturally sterile soil, to yield an abundant harvest, and every stream of water, by propelling machinery, to become a source of wealth, but, by his alchemy, he transmutes the very frosts of winter into gold.

But I took my pen to write of Maryland, not of Massachusetts. The condition of agriculture in this State is generally bad. The *skinning* system has been practised here, as in New England, till a large portion of the territory has been so far reduced as not to pay for cultivation. But happily, here, as in the northern States, farmers are beginning to find out that there is a better way. Within the last five years a great change has been effected. It has been ascertained that worn-out lands may be effectually reclaimed by the application of lime. Limestone is abundant in most of the counties of the State. And lime may be ob-

tained in almost every part, for 12½ cents per bushel. The mode of applying it, is by sowing it broadcast. The amount thus applied, varies from 75 to 100 bushels to the acre. Land thus dressed, at an expense of from $12 to 15 per acre, I am told, will produce good crops, without any additional dressing, for ten years.

In many portions of the State, I am informed, the price of land has advanced fifty per cent. within five years. New England farmers manure for corn. The Maryland farmer manures for wheat, and leaves his corn crop to take care of itself. Corn is planted upon the lightest soil and receives the least attention. The land is imperfectly plowed, and after planting, the corn receives very little attention, except that a shovel plow is passed between the rows two or three times.

With such attention, corn could not be raised in New England at all. I am by no means certain, however, that the labor we bestow upon this crop would not pay well here. Where 25 or 30 bushels are harvested now, I believe, with proper cultivation, 50 might be secured. It was early instilled into my mind, as an agricultural tenet, that "corn cannot be cheated." Two bushels of corn may be raised here, at less expense than one, on the best corn lands in Massachusetts. The same I think is true of many other crops, so that if the farmer wishes to make money, and nothing else, he will do well to leave Massachusetts and come to Maryland.

I visited a few days since, the celebrated farm of Mr. George Patterson, of Carrol County. Truly, that is a farm as is a farm. The tract contains seventeen hundred acres, all in one body, lying nearly in the form of a square. The surface is gently undulating, nowhere too abruptly hilly, nor too level. On the whole tract there is very little, if any waste land.

The mansion, which is an imposing structure for a farm-house, and so located as to produce a most pleasing effect upon the beholder, occupies an eminence in a central position, overlooking nearly the whole territory. The landscape is beautifully diversified with hills and dales, cultivated fields and forests. In the season of foliage, the scenery must be enchanting. There needs but a castle, with a high tower, a moat and a draw bridge, to give it the air of a baronial estate. But in the absence of these lunar fardels, for which feudal lords were wont, whilom, to fight and bleed, the lowing herds of cattle, the bleating flocks of sheep, the prancing steeds, the grunting swine, and the cackling fowls, indicate "the piping time of peace;" that the sword has given place to the plowshare, that rural and civic duties have succeeded to the reign of Mars and Bellona.

A beautiful rivulet divides the farm, which is made to pay tribute in the way of converting the proprietor's grain into flour.

Thoroughness is a prominent characteristic in every department. The adage, what is worth doing at all, is worth doing well, seems to be a ruling principle of action. The fences are a great curiosity. As far as I saw, they were all made of chestnut and oak rails, about ten feet in length, laid up Virginia fashion, from ten to twelve rails in height, with a pair of stakes at each corner. The proprietor has learned, from poor Richard, or from some other source, that an ounce of prevention is better than a pound of cure. 'Twould be well for all farmers to learn and practice the same lesson. With such fences, there would be no breachy cattle, and consequently no losses from their depredations.

The barns are neatly and substantially built, and most of them after the same model; being 36 feet by 18, and wholly devoted to hay and grain.

But that is a small barn, says the New England farmer. Very true. But what there lacks in size, may be made up in number. The barns are all numbered, and I saw No. 47, and was told there were 50 in all, on the farm. Of this number, several are devoted to the sheltering of stock; for instance, one to milch cows, one to working oxen, one to horses, one to sheep, and so on. These are much larger and specially adapted to the purposes for which they are used.

No man has done more for the introduction of good stock and improvement in the breeds of cattle, in this country, than Mr. Patterson. He has spared neither pains nor expense. He seems to till the earth as I think every man should, not solely for the purpose of extracting wealth therefrom, but *con amore*,—for the sake of beautifying it,—for the sake of developing and perfecting its resources,—for the sake of multiplying luxuries and increasing the comforts of human society. He has devoted to his work intelligence, the results of extensive and accurate observation, together with the triumphs of science and art. He is now reaping a rich reward.

Of his stock, the nature of his soil, and his method of cultivation, I may write hereafter.

Yours, R. B. H.

Remarks.—Please to do so—and fill out the above initials, so that we may know to whom we are indebted for such lucid and interesting descriptions.

For the New England Farmer.

TRANSPLANTING.

Mr. Editor:—Sir,—As you are very good to give advice and counsel to the needy, through the columns of your paper, I beg leave to propose two or three questions. I wish you to tell me what to do to cherry trees, to have them bear good sound fruit and prevent them from being wormy? Also, the best month in the year to set out fruit and shade trees, viz: Maple, Elm and Spruce? In so doing, you will confer a favor upon a constant reader of the *New England Farmer*.

Deerfield, March 25, 1853. G. W. Mann.

Remarks.—Keep your cherry trees healthy and vigorous by manure and cultivation, and keep insects from stinging the fruit *if you can*.

Set your trees as early in the month of April as the frost will permit. Directions how to do it were given in the *Weekly Farmer* of March 26. Do not let the sun shine or the wind blow on the roots of the evergreens a moment. Keep them covered with earth, wet moss, matting, or something of the kind, till the moment they are set back into the ground.

Eggs.—Mr. Edward Aborn, of Providence, R. I., has sent us three eggs, laid by one of his

Shanghai hens, (of Forbes's importation.) Two of the eggs are not above the usual size of hen's eggs, but are very heavy, weighing, one 2¼ the other 2¼ ounces. The third is of a very large size, weighing 4 ounces, and measuring 8¾ inches one way, and 5 13-16 inches the other. Mr. Aborn will please accept our thanks for the above.

For the New England Farmer.

THE VALUE OF SULPHATE OF ZINC (WHITE VITRIOL) TO THE FARMER.

Having formerly been a practitioner of medicine, my knowledge of the properties of the above article has led me to some knowledge of its value as a topical application in the farm yard.

At one of our Annual Agricultural Exhibitions a year or two since, I met with a farmer, who, I remembered, had the previous year exhibited a cow whose fine bag had attracted my attention, and which it seems always gave an abundant yield of milk after calving, which was regularly and seriously diminished by the difficulty of milking occasioned by her teats becoming sore not many weeks after the calf was taken away. He informed me that he had made the application to her teats which I had recommended the year before, and that it had speedily and entirely cured the teats and that they had remained perfectly well ever since. I had entirely forgotten having recommended anything, and he could not remember the name of my prescription; but upon my repeating one or two articles which I thought most likely to have been suggested by me to him, he confidently caught at the name as I repeated it of the article above mentioned as the one which he had so succesfully used. It was not many mouths after that, my hired man complained of a similar difficulty in a valuable cow owned by myself, causing her frequently to raise her foot while being milked, and preventing thorough milking of the affected teat. Recalling to mind the instance above mentioned, I promised the man a remedy for trial; but other cares led me to postpone its preparation until I found after two or three weeks that the sore or excoriation on the teat was of the size of a finger nail. I then dissolved perhaps a teaspoonful of sulphate of zinc in a half pint of water, and directed my man to apply it *after* each milking, by means of a soft rag saturated with the solution. It was four or five days, I think, (but possibly a week,) thereafter, before I thought to inquire as to its effects, when I confess I was as much surprised, as my man seemed pleased, to find a perfect cure effected and natural and healthy appearing skin in place of the excoriation or sore skin. This occurred some time last summer, I should think about July or August, and when I left home the last of January, she had been milked regularly since that time without the slightest return of soreness.

The hand of the man who milks is usually suffered to be applied dry to the teat, and is often hardened by hard work, and it is not surprising that the friction occasioned thereby (and by a very different surface from the moist mouth of the calf —the milker designed by dame nature) should occasion inflammation in the skin, and a consequent cessation of the slight oily secretion natural to the pores of the skin of the teat. The sulphate of zinc is a decided astringent, and free from the objectionable properties of some mineral astringents. Again; I had a litter of Suffolk and Mackay pigs littered last autumn, at that season when a hot sun following cold nights is liable to produce irritation and cracking of their tender skins, and a consequent thick black scabs on the back, while their tails become an entire scab and drop off.— Five of this litter were thus affected. They looked as if they had been lying or rolling in black mud, but the pen was perfectly dry; it increased from day to day, and the state of the tail also satisfied me that they were affected by *some* disease of the skin, I knew not what. I therefore resorted to a book upon the breeding and diseases of this animal, and found the affection well described and accounted for, but the treatment very unsatisfactory to me. I determined therefore to try the zinc, as I thought it reasonable and probable that in this instance also it would prove useful. Upon removing the little things from the pen, we found their backs occupied by scabs of great thickness, and so nearly touching each other as to present the appearance of an uniform black patch; but the skin was discoverable in the cracks between each scab or row of scabs, and the scabs we found surrounding and involving the hairs. I had prepared the zinc by mixing perhaps a heaping tea-spoonful with a lump of hog's lard of the size of a goose egg, incorporating it thoroughly with a case knife. This was thoroughly rubbed upon the parts affected, and the pigs returned after each application to their pen. It was repeated every other day, until it had been applied three times; after which, the thick scabs disappeared from four of the five, leaving the skin in a natural state, with the exception of a very slight blush of red where the scabs had been. But this shortly disappeared. The fifth was one which we had brought up by hand, and was not cured until the application had been made five or six times. The tails were hopelessly lost, except one or two where the root of the tail alone was affected. The others, when we commenced with the zinc, had the whole tail involved and cracked and looking as though roasted (not brown) but to blackness.— The speed with which the cure was effected, considering that the scabs were at least an eighth of an inch thick, and that the pigs were continued in the same exposure where the disease originated, leads me to feel confident that the cure could not be solely attributable to the lard, which I have no doubt would be so far servicable that with longer time it might or probably would, remove the difficulty. I sold the little fellows at five weeks old, for $5 a pair.

But to ascend from cows and pigs to a higher order of beings for whose sake it may be worth while to possess and to use this preparation of zinc. Suppose a mother to have given her young child an orange to amuse it or to eat, and not being watched, the little fellow has eaten the peel as well as the pulp. Or, suppose that it has eaten some other equally indigestible article, and that its stomach and delicate nervous system rebels against the unwelcome intruder. The child is found before long, as sometimes happens, in a fit or convulsion. It is laid upon the bed and seems to return to consciousness, but another and another fit succeed. The doctor is sent for, but half of our farmers live one or two miles distant from

the doctor, and half the time the doctor is not at home. In such a case, what a relief to the parents and household it would be, to know just what the doctor would do if there, and to have the remedy at hand.

Let them dissolve (according to the age of the child) from one-twelfth to one-fourth of a teaspoonful of sulphate of zinc in a great spoonful of water, and give it to the child from the spoon; (for if a fit should occur, it might bite a piece from a cup or glass) and in from three to five minutes the contents of the stomach will be evacuated, the cause removed, and nothing further but rest is needed. Its operation would probably be hastened by giving drink of warm water in order to slightly distend the stomach. If it does not operate in five minutes, the dose should be repeated until the stomach is evacuated. It might be well to give from two to six drops of laudanum afterwards, to allay any irritation of stomach caused by the zinc or the indigestible food, especially if there is tenderness upon slight pressure on the pit of the stomach.

FARM ACCOUNTS.

We have been permitted to look at a *Journal of Farm Accounts*, kept by D. TENNEY, Esq., of Sutton, commencing with the year 1822. Mr. Tenney has divided his farm into small lots, to each of which he has given a name. This name is entered on the top of the left-hand page of the journal, together with the amount of land which the lot contains. Then follows the account as set forth below. This lot is entitled "Young Orchard," containing *three-fourths* of an acre, and the profits are given for each year, from 1844 to 1852, inclusive. We have selected a lot showing quite favorable returns; but every lot shows a fair gain on the capital and labor invested. In the "Young Orchard" lot, in

1844,	the profit	was	$47.00
1845,	"	"	16.40
1846,	"	"	75.40
1847,	"	"	57.38
1848,	"	"	101.50
1849,	"	"	60 18
1850,	"	"	132.50
1851,	"	"	131.15
1852,	"	"	79.00

The account is kept in the following form:

Left-hand Page.	*Right-hand Page.*	
1852. By 10 days work picking apples, at 75 cts.,	$7.50	1852. By 197 bushels of winter apples, or 79 barrels, at $1— $79.00
		125 do. cider apples, at 6c, 7.50
		$86.50
	Deduct labor,	7.50
		$79.00

In 1851, the apples sold at the door for $2 a barrel, while in 1852, they only brought $1, after being transported to Worcester.

The Journal contains accounts kept with various kinds of land, where it was reclaimed, as well as old land, and the results are all favorable. If farmers would adopt Mr. Tenney's mode of keeping accounts, we think they would find better returns from their farms than they have been in the habit of giving them credit for.

ANALYSES OF CLAM AND OYSTER SHELLS.

MESSRS. EDITORS:—In your January number of the "*Plough, Loom and Anvil*," is a brief notice of the application of oyster shells as a manure for fruit trees. That those who use them may know what they are adding to their soil when they apply them, I here send you for publication their analysis, together with the analysis of the clam shell.

In the vicinity of the sea-coast and in the neighborhood of large towns, the common clam and oyster shells are quite extensively used by farmers as a manure. They are sometimes thrown upon the land whole, sometimes previously broken into fragments, and often burned. As a general rule, the latter method may be considered preferable to either of the others.

Soils, however, containing already a sufficient quantity of lime for present demands, and where the object is merely to compensate for the gradual waste, shells unburned may answer quite as good a purpose as those which have been burned. When used before burning, owing to their compact texture, they are acted upon but slowly by the ordinary agents to which they are subjected, and hence it requires a much larger quantity of them than of burned shells to exert, in a given time, the same degree of influence upon the soil. Unburned, their effects are not materially different—throwing aside the small quantity of animal matter and soluble salts they contain—from ordinary limestones broken equally fine and disposed of in a similar manner.

Before burning—omitting moisture—they are made up principally of carbonates, with a small quantity of organic matter, phosphates, sulphates, and chlorides. The process of burning expels nearly all of the carbonic acid and organic matter, with some of the chlorine, leaving the phosphate, sulphates, and a small amount of chlorides and carbonates. The rest, lime, which makes up nearly the whole, is in a caustic state.

As the composition of these shells, both before and after burning, may be of some interest, I here give them:

The common *clam shell* (Venus mercenaria)—100 parts of the dry unburned shell gave of

Silica	none.
Phosphates of iron, lime and magnesia	1.250
Carbonate of lime	69.204
Sulphate of lime	0.815
Lime, probably combined with organic matter	13.907
Magnesia	1.400
Potassa	1.847
Chloride of sodium	6.191
Organic matter	6.050
	100.614

The same shell, burned till the organic matter and carbonate acid were nearly all expelled—100 parts gave of

Silicia	none.
Phosphates of iron, lime and magnesia	1.856
Lime	78.610
Sulphate of	1.210
Magnesia	2.078
Potassa	2.816
Soda and chloride of sodium	10.386
Carbonic acid	3.043
Organic matter	trace.
	99.999

Shell of the common oyster (Ostrea borealis)—100 parts of the fresh shell, deprived of water, gave of

Phosphates of iron, lime, and magnesia	0.842
Carbonate of lime	86.203
Sulphates of lime	2.061
Lime, probably combined with organic matter	6.035
Magnesia	0.338
Potassa	0.191
Soda and chloride of sodium	0.690
Organic	3.613
	99.613

The same shell, burned till nearly all the carbonic acid and organic matter were expelled—100 parts gave of

Phosphates of iron, lime, and magnesia	0.800
Lime	91.918
Magnesia	0.560
Potassa	0.316
Soda and chloride of sodium	1.144
Sulphuric acid	2.011
Carbonic acid	2.050
Organic matter	trace.
	98.799

From these analyses it will be seen that the shells of the clam contain a much larger percentage of phosphates, magnesia, potassa and soda, than those of the oyster; while the latter are much the richest in lime and sulphuric acid.

Yours truly,

J. H. SALISBURY, State Chemist.

Old State Hall, Albany, Feb. 14, 1853.

—*Plough, Loom and Anvil.*

LEGISLATIVE AGRICULTURAL MEETINGS.

ELEVENTH MEETING—TUESDAY EVENING, APRIL 5, 1853.

The eleventh meeting of the series was held at the State House, on Tuesday evening. The subject under consideration was "*The Structure and Position of Farm Buildings.*"

Mr. PROCTOR, of Danvers, presided, and in opening the discussion remarked that in his opinion, the cost of farm buildings should be proportionate to the value of the farm; that is, they should not cost more than the land, but as much less as possible. On a farm worth $5000, the house should not cost more than $2500. The buildings should be so situated as to save travel and power in farming operations, as on uneven land, the necessity of transporting manure up hill, as this is generally the heaviest labor on a farm. It would be much easier to draw produce up hill than manure.

The barns and sheds should also be so arranged as to afford the most comfort and convenience to the animals occupying them. Much suffering and loss occurs from a neglect of this matter. Farmers should avoid building their houses too high, because if constructed with three or four stories, the upper stories are inconvenient to get at. Whoever builds in this manner, errs in taste and misapplies his money.

Farm buildings, too, should be adapted to the purposes for which the farm is designed—as, if a dairy farm, or a cheese farm, rooms should be built expressly to meet the requirements of such farming.

Mr. PROCTOR thought the habit of keeping cattle in the barn during the entire winter, was unnecessary; because, if sheds and yards are properly constructed, young cattle, certainly, can be well kept in them.

Mr. BROWN, of the *N. E. Farmer*, said that one great difficulty in arranging our farms and buildings is, that most of them come to us either by inheritance or purchase, and alterations in them are expensive. If he were to lay out a farm, he would form it into an oblong square, and if the lands were extensive, he would place the buildings somewhere near the centre—if not very ample, near the front centre, and nearest the highway, to be used in connection with the farm. He agreed with the Chairman, in regard to the house on a farm, for he believed there was much truth in the old couplet,

"A little house and a great barn,
Is a sure sign of a good farm."

One of the most important apartments in a house, is the cellar; and yet, among farmers it is often more deficient than any other apartment. The cellar should be eight or nine feet high from the bottom to the floor of the house, and should be well painted and white-washed. It should be kept in such a manner as to keep it moist, so that the hoops on the barrels should not drop off, but not so moist as to cause the casks and bins to rot. Mr. BROWN stated that he had a stream of water running through his cellar nearly all the time, the springs flowing out from the hill side behind his house, being conducted through it.

He found that fruit would keep better in this cellar than in any other he had ever used; he had no doubt he could keep some kinds of apples in it two years, without withering or shrinking much. The casks are always in good condition if the cellar is cleaned out two or three times a year, as he intends to have it.

In regard to the structure of barns, Mr. BROWN thought that if any man would furnish a design for such a barn as thousands of our farmers are at the present moment in need of,—something neat, convenient and cheap—he would confer a great benefit. He instanced the farm of a gentleman in Westboro', which accommodated under one roof the carriages, the hay, and the implements, by which means the expense of constructing roofs for separate buildings is avoided. Then from the centre of this barn, is another for the cattle, the droppings of manure being thrown under this building,—leaving the cellar of the main barn sweet and clean for the reception of the crops of the farm throughout the year. He had endeavored to form one after the same fashion. There was one great inconvenience connected with it, however; the bays for hay were very wide and long, and it often required three persons to unload and stow it away, which is more labor than can be spared in the haying season.

Mr. SHELDON of Wilmington said he had never

seen a barn which exactly suited him, but the one described by Mr. BROWN accorded well with his views. He had built his barn with a cellar under it where he kept his hogs; but he did not like it because he thought the odors from the manure affected the hay injuriously. Cattle would not eat it so well. He would prefer to have a barn with a cellar separate for manure. In regard to unloading hay, if practicable, he would have one end of the barn so as to drive in over the beams. He would also have his barn large, so that when, as frequently happens, in case of showers, hay has to be housed before it is fairly cured, there might be room to complete the process before it is mowed away. As to the position of buildings, he would as a general thing have them in the centre of a farm but would not get into a hollow, because it is apt to keep the cellars too wet, and the manure in the spring is too wet also. Farmers are apt to get their cellars too low and their buildings too high.

Mr CLARK of Waltham said the position and structure of farm buildings depended very much on circumstances as to expenses, points of the compass, &c. He thought that as lumber was becoming scarcer and dearer every year, our farmers would soon be obliged to resort to stone or some other material than wood for their buildings. He remarked that he had noticed this winter that his cattle preferred spring water to well water, although he considered the latter superior. Farmers should have an abundance of water, because if they drive their stock away from home they lose a good deal of manure as well as time.

Mr. BROOKS, of Princeton, said he had been opposed to barn cellars to keep manure in, for he believed they injured the hay and affected the health of the cattle. If we build barns tight enough to keep cattle warm, we retain the gases of manure when it is in a cellar under the barn, and they injure the cattle and the hay: therefore he would build a barn entirely separate for hay, and then build a leanto one story high for cattle; and then back of that dig a cellar—or, if the land was not convenient, build a shed for the manure.

Mr. BROWN said he believed that manure under the hay and under cattle was injurious. As an illustration, he related the case of a friend of his, who built a barn which he thought he got completely fixed in every respect, and digging a cellar under it. He purchased a good deal of manure and brought his lands into a high state of fertility, producing large crops of hay, some of which grew quite rank. This he allowed to accumulate in his barn. He finally sold his stock to be pressed into bundle hay. Some of it had lain in the bay for three years, and when it was removed to be screwed down, it was so offensive two or three feet from the floor, that the men employed to press it were unable to endure it, although the barn was entirely open, and a thorough ventilation was secured; and they were obliged to throw away portions of it.

Mr. BROWN remarked further, that it was difficult to arrange barns so as to have the cattle entirely separate from the hay. We must wait until we can build anew. We cannot afford the expense of changing the barns we now have. He would suggest as a remedy in part to strew the floor of the leanto every morning, or whenever the cattle are cleaned, with ground plaster. It will very speedily absorb the gases, and thus prevent the odors arising from the manure. But the thing of great importance, is to *cover the manures, once a day with the great absorbent, peat-mud.*

The suggestion of Mr. CLARK in regard to the use of stone as a building material by farmers, Mr. BROWN regarded as very important on account of the constantly increasing value of lumber. In his opinion we must have some thing to take the place of it. All over New England there are found stones that will split easily, and there are also slate stones that will make very fine building material. He desired that farmers should give the matter earnest consideration, and ascertain whether we cannot build as cheaply with stone as with wood. Stone buildings may cost the most at the outset, but once built, there is little to be done to them for a long time afterward, while on wooden buildings there is a constant expenditure for painting and repairing.

Mr. CLARK said he would make one suggestion in relation to the construction of horse stalls. He did not believe that horses ought to stand on plank floors. His horses stand upon the ground summer and winter—or rather upon a slight pavement, the bottom of the stable being paved with small stones, underneath which is a hard pan. He could not discover that he lost any liquid manure by this method. Standing on plank floors he thought injured the horses' feet and produced disease.

Mr. BROOKS did not consider the remedy for obviating the effects of the noxious gases of manure, viz. plaster, suggested by Mr. BROWN, as entirely sufficient for that purpose, because these gases are continually rising, and therefore plaster occasionally thrown down cannot effectually suppress them. He certainly would have no manure underneath the hay. In reply to inquiry, he remarked that he did not suppose any injury would accrue where one side of the cellar was left open; but in such case the barn could not be warm enough for the cattle. Still he had known of old-fashioned farms where this was the case, and the cattle were healthy; but it undoubtedly took more to feed them. The idea is to keep cattle sufficiently warm. They eat three per cent. of their live weight per day. If they are kept cold, they will eat more, and if very warm, less. Mr. BROOKS considered a warmth of 55 degrees as

about the right temperature. He believed it would be a gain to keep a fire in a barn in order to bring the temperature up to this point.

Mr. BROOKS attributed the preference shown by cattle for spring warer over well water, to the greater warmth of the spring water. He had found by experiment that cattle prefer water from which the "chill" has been taken off. If he were going to build a barn according to his ideas of perfection, he would have an apparatus for heating water—he believed it would pay.

Mr. SHELDON said he had a barn with the cellar open on the south side, but the hay will injure on the north side. He coincided with Mr. CLARK in regard to plank floors for cattle. He had had more experience with oxen than with horses, and some years since, when he kept a large number, he used to spread meadow hay, which was then very cheap, under them, for them to stand on; and he would as readily have oxen thus kept, travel 18 miles a day, as to allow those kept on a plank floor to travel 15.

Mr. EMERSON, of Boston, thought barns should be placed on the northern or northeastern side of the dwelling, because the unpleasant and noxious vapors arising from manures, which are readily carried off by the dense atmosphere and strong winds of winter, are too heavy to be forced upwards by the lighter air and currents of summer, and hence, if the barns are located on the north side, will become very annoying during the warm months, as the southerly currents will waft them directly upon the house. The barn-yard, also, should not lie between the house and the barn, but be fixed beyond the barn, in order to avoid passing through the yard in going to the barn. It would also tend to prevent annoyance from noxious vapors in summer.

For the New England Farmer.

PLASTERED HOUSES.

MR. BROWN:—I noticed in the last No. of the last Vol. of the *Farmer*, an article inquiring "if the outside" of a house "could be plastered or finished with concrete or hydraulic cement, and then painted and penciled in imitation of granite, so as to be durable?"

Mr. Camp can plaster with common lime mortar, leaving it rough, or as the leveller leaves it, until *well dried*, then a coating of plaster paris can be applied, and when dry it can be painted to suit his taste. The plaster paris will cost about twelve and a half cents per square yard, including material and labor of putting it on, and forms a perfectly hard, smooth surface.

I have been looking for an answer which would be of use to me, as well as Mr. Camp.

As the season for repairing and building is at hand, cannot some one give some useful and practical hints in regard to the subject? Surely, there is a broad uncultivated field here, which ought to be occupied immediately. ARTESAN.

For the New England Farmer.

OBSERVATIONS ON SPRING WORK.

BY F. HOLBROOK.

The Spring of the year is a busy and hurrying time with farmers, and yet there are some operations of tillage which they can ill-afford to execute in a slight and superficial manner. It would be impossible in a communication of reasonable length to speak of all the methods of culture pertaining to this season; and only a portion of the more important of field-operations will be noticed at this time. Observation would rather induce the remark, that the preparation of the ground in the Spring, for the reception of seeds, is not generally as thorough as it should be. A more particular and finished style of plowing, for instance, would undoubtedly well reward any extra labor involved, by the extra amount of product of crops it would ensure. The furrows are generally too wide, shallow, imperfectly turned and matched, the crops are lessened by the means, while the labor and expense of the after-cultivation is increased. Then, again, it is too common to plow the different soils in the same style, while they require variations as themselves vary. The style of plowing a stiff, compact clay, should be different from that of a dry, loose, porous, sandy or gravelly soil.

The best way of plowing a stiff clay, consists in cutting very narrow furrow-slices in proportion to their depth, and setting them over as nearly as may be, to an inclination of 45°, thus making high-crested lapped work. To do this the most surely, the depth of the plowing should equal about two-thirds its width,—say as 7 inches deep by 10 inches wide, or 8 by 12, or 9 by 13 to 14 inches. When the earth is turned over in slices of these proportions, the plow in the act of turning them, can finely crack and disintegrate them; then they are set up so lightly, and so lightly rest against each other, that the atmosphere can circulate among them, the rains pass through them, their projecting angles or exposed faces present the greatest attainable surface to the atmosphere, and the greatest contents of soil to the operations of the harrow, so that it can the better slacken and break down the stiffness of the soil, combing out its too compact constituent parts into fine particles, and raising a deep mellow seed-bed.

With a view of satisfying myself of the advantages or otherwise of lapped over flat plowing of stiff soil, I last year selected an acre of formerly wet, and naturally heavy tenacious pasture-land, that had never been plowed, and plowed half of it in 7 by 10 lapped furrows, and half in 7 by 12 flat furrows,—both kinds being done in a particular and finished style. The land was moderately manured, and planted with potatoes. In the operation of harrowing, it was found that the surface of the lapped furrows soonest yielded a fine tilth, and gave the deepest seed-bed. The hoeing upon the lapped work was the mellowest, and the horse, in passing between the rows on this half with the cultivator at hoeing-time, would frequently sink down fetlock deep between the furrows. A greater luxuriance of vines on the lapped than on the flat furrows, as also a superiority in the size of the potatoes, and in yield of crop, was quite apparent; and the hand-cultivation was performed with greater ease and expedition.

But dry, sandy and gravelly lands, being already

too loose and porous, are best plowed in perfectly flat furrow-slices, the edges closely matched in, and the plowed land lying smooth and firm; and if a heavy roller is passed over it, closely pressing the furrows down and together, it is generally all the better for the succeeding crop,—more particularly if a dry season follows. I have had much to do with very light, dry, sandy and gravelly lands, and have succeeded best by one thorough sod-plowing, as deep as circumstances would warrant, turning the sod over perfectly flat, then pressing the plowed lands down with a heavy roller, then raising a tilth two to three inches deep with a light, fine-toothed harrow, planting one year, the next year plowing quite shallow and seeding to grass with grain, and leaving the turf undisturbed beneath. I have frequently observed that the new seeding gained a thicker and better stand after this mode of cultivation, than when the turf was brought again to the surface at seeding time, and there left to dry and become dissipated by sun and wind.

The soils of medium texture between the extra stiff and the loose and porous, are perhaps generally as well plowed in flat furrows, as any way,—only let the slices be as narrow in proportion to depth, as will do, and turn over handsomely, because the soil turned over in narrow slices, is more surely and readily disintegrated and broken into particles. The sod and subsoil plow appears to be quite well adapted to the working of these soils, where the land is not too rough or too much encumbered with obstructions. It is sometimes claimed, indeed, that this kind of plow is best adapted to every soil; but the claim is perhaps rather broad, and possibly it might be as well to leave a slight margin for the present, at least.

In plowing stubble or old land, it is well to use a plow of shorter mould-board, more abrupt in curvature than that of a first-class sod or breaking-up plow, so as to give the furrow-slices that short twist in turning them, which shall break and separate the soil into particles, mixing it up and leaving it a mellow bed for grain and grass seeds.

Pretty nearly all soils here in New England, are rather too shallow, and may be safely and profitably deepened by a gradual process, ultimately attaining a depth of surface-soil of eight or nine inches, of uniformly good fertile quality. I have tried the process, and know that it will not *spile* the land. The advantages of a deep, over what can be realized from a shallow soil, are too apparent to need comment.

In harrowing land for a crop in the spring, the operation is too commonly executed in a careless and superficial style, notwithstanding that such style cannot well be afforded. The crop, of whatever kind, will start the quicker and be the more forward and vigorous, if the seed-bed has been made deep, fine and mellow; and if a planted crop, the planting and first hoeing will be enough better and quicker executed to more than three times pay for the extra time and labor spent in thorough harrowing. Great improvements have been made in the construction of harrows, and it is quite singular to me that the coarse, uncouth implements of former days, should now be used, when those so very much more effective, are so readily procured. Some of the best-constructed, modern hinge-harrows are adapted in their operation to the surface of the ground in all places, and whether going through little sharp hollows, or over stones, knolls or ridges, they always hug the ground closely, and produce a fine, equal pulverization in less time than is consumed in mangling and bruising the ground with the old, clumsy, coarse-toothed, ill-constructed harrow. In another communication, I will give a drawing and description of a hinge-harrow which I use and think a good one, and which every farmer can readily make, or get made in his neighborhood.

Manure to be applied to sod-land plowed for a crop in the Spring, if fine compost, generally produces the best results when spread on the surface of the furrows, and mingled with the soil to the depth of two to four inches. An ordinary coat can be suitably mixed with the soil by the harrow; and if a very heavy coat is to be applied, the sod-plowing may be of good depth, so that the manure when spread on top may first be harrowed in, and then turned down and mixed with the soil to the depth of three or four inches by a light plow.

If coarse, unfermented manure is to be used, and the sod-plowing is to be no deeper than that which generally prevails, then the manure may as well be spread on the grass and turned beneath the furrow, spreading it not much ahead of the plowing; but if the plowing is to be extra deep, the manure may as well be spread on the surface of the plowed land after it is harrowed, and then buried four inches or so, with a plow guaged and regulated by a wheel on the beam. Any kind of manure, in any state, if to be applied to stubble or old land, had better be plowed in, for it is the nature of stubble plowing to turn no part of the crumbling furrow-slice exclusively to the bottom of the channel, but rather to mix up the various parts all the way from bottom to top, so that the manure will be found, on inspection, to be well mixed with the soil, and not buried too deep.

My friend, J. W. Colburn, Esq., of Springfield, Windsor Co., Vt., one of the best farmers we have in Vermont, informs me that his practice is to use coarse, unfermented manure, spreading it upon the grass land to be plowed in the Spring, and turning it under with a sod-furrow six inches deep; he then plants the land with corn; and the next year plows it ten inches deep and seeds with spring grain and grass seeds. He has often commmended the practice to me as attended with satisfactory results; and has frequently taken the premiums of the Windsor County Agricultural Society for fine crops.

The earlier Spring sowing can be done after the ground is fit to be worked, the better will it generally be for both the grain and young grass. It is customary with some to sow grass seeds with grain in the spring, and with others to omit the grass seeding at that time, and plowing the grain stubble under after harvest, seed with grass in August or September. I have practised both modes, sometimes succeeding best with the Spring, and sometimes with the late summer seeding. If the fore part of the season is pretty moist, the latter part is often apt to be dry; and in that case Spring seeding will be likely to succeed best: on the other hand, if the fore part of the season is prevalently dry, it is often followed by a moist autumn; and then the late seeding succeeds best. As we cannot anticipate the character of the season with much certainty, I have rather fallen into the practice of sowing grass seeds with grain, in the Spring,

and if a good catch is not obtained, the land is at once plowed again after grain-harvest and reseeded with grass only. A failure in having one's new-stocked mowings well set with grass, is a great disappointment and vexation, and the best relief is found in plowing and reseeding again the first fit opportunity. These remarks upon laying land down to grass have exclusive reference to stubble land, and not to the plowing and reseeding of mowings after haying, for the purpose of renewing them.

Oats are a hardy crop for one's own feeding purposes, command a good and ready cash price in market, and therefore are quite generally sown; but if the land is to be stocked to grass at the same time, and a good catch is to be principally considered, they are not as good a crop to sow as barley. If they grow stout, they shade and choke the young grass too much; and if they lodge they fall flat upon the ground, smothering and killing the grass; but barley gives the grass a better chance for growth, and if it lodges, it rather crinkles or doubles over than falls flat, so that the young grass maintains a stand in the soil. I have sometimes been led to observe quite a superiority in my first hay-crop after seeding with barley over that after oats; and the result may probably be attributed to the fact that the young grass got better foothold so as to more completely occupy the soil in the former than in the latter case.

I have found peas and oats a valuable crop, particularly for early autumnal feeding of fattening-swine, and generally for any stock at any time. I usually sow one and one-half bushel of peas, and two bushels of oats to the acre, which makes about the right mixture of straw to stand up pretty well while growing, and of grain for feeding. Some of my crops from this seeding have been very luxuriant and profitable. Year before last, I obtained 57 bushels of grain and a great quantity of straw from a little less than one acre, and considered it the most profitable grain-crop raised that year, from that quantity of land. If the crop of peas and oats is very stout, it cannot be cradled, and must therefore either be cut with the sickle or scythe. I prefer reaping to mowing, because the crop is easier cured, handled in carting, and threshed, and takes less barn-room. It would not be advisable to sow grass-seed with peas and oats, for the latter are too smothering to the young grass; but the stubble may be plowed in and the grass-seed sown in the fall.

In stocking land to grass, the seed should be strown broadcast with a liberal hand. There is no economy at all, in *sprinkling* it over the ground. If sown bountifully, foul stuff will be shut out, the quality of the hay will be fine, the sward will be thick and firm, and when plowed under for the next rotation, will return a heavy coat of vegetable matter in its roots and stems to the soil, enriching it, and nourishing the succeeding crops.

The more general sowing of white clover-seed is confidently recommended. If land is in good heart at the time of stocking it to grass, white clover sown with the other grass-seeds will thicken up the bottom of mowings, growing some eight or ten inches high and in a thick mat, and the burden of hay will prove much heavier than it seemed likely to be before mowing. Soon after the practice of sowing white clover on the tillage-fields commences, the plant will begin to show itself in various places on the farm, and ultimately gets pretty well scattered over the pastures, as it seeds very profusely, and the seeds are carried from place to place in the manure and otherwise. The price of the seed per pound in market is high; but then one pound of it will seed more land, than two pounds of red clover seed; so that in fact the former is the cheaper seed of the two, for an acre.

Red-top, red clover and white clover seeds, sown together, produce a quality of hay universally relished by stock. My practice is, to seed all dry sandy and gravelly lands with this mixture. The red and white clover pretty much make the crop the first year; the second year, the red clover begins to disappear, and the red-top to take its place; and after that, the red-top and white clover have full possession and make the very best hay for horses or oxen, milch cows or young stock, that I have been able to produce. The crop per acre, as compared with herds-grass, is not so bulky; but tested by weight and by spending quality in the winter, it is much the most valuable.

Herds-grass hay grown on moist uplands or reclaimed meadows, and swamps of a mucky soil, or lands not over-charged with silica, is of good quality; but when grown on sandy and gravelly soils abounding in silex, the stalks are hard, wiry, coated with silicates as with glass, and neither horses or cattle will eat it as well, or thrive as well on it as on hay made of red-top and clover; and as for milch cows, they winter badly on it, and do not give out the milk as when fed on softer and more succulent hay. Still, it is a valuable grass for hay on other kinds of soil; particularly valuable for stocking down reclaimed peat meadows, and swamps of mucky soil; for these lands are generally more or less deficient in those matters which give strength of stem to the crop; and herds-grass while by its disposition to attain a stiff stem, thrives and stands up straight on such land, till harvest, yet makes succulent and nutritive hay, because it cannot appropriate a redundance of silicious matter as in the other soils alluded to. For similar reasons it makes good hay on all soils not over abounding in silica.

I intended at the commencement of these observations, to say something upon planted crops and upon root crops; but as my remarks have already attained too great length, I will bring them to a close with one observation upon planting corn, namely; when planted on dry, loose, land, it is best to cover the seed from two to three inches deep, so that if very dry weather succeeds immediatety after planting, the germination may proceed, and the young sprout not become withered by heat and drought; and indeed on all land suitable for corn, it is generally safest, one year with another, to cover the seed pretty well in planting, so that if a frost succeeds after the corn is up, the vitality of the plant may be preserved by the extra covering of earth. If planted quite shallow, the crop is liable to fail, both from drought and frost. F. H.

Brattleboro', Vt. April 2, 1853.

TO CURE SHEEP SKIN WITH THE WOOL ON.—Take one spoonful of alum and two of saltpetre; pulverize and mix well together, then sprinkle the powder on the flesh side of the skin, and lay the two flesh sides together, leaving the wool outside. Then fold up the skins as tight as you can, and hang them in a dry place. In two or three days,

as soon as they are dry, take them down and scrape them with a blunt knife till clean and supple. This completes the process, and makes a most excellent saddle cover. Other skins which you desire to cure with the fur on, may be treated in the same way.

We can speak in favor of the above receipt. It does all it promises. Such skins make excellent mats for indoors.—*Detroit Farmer's Companion.*

ORNAMENTAL AND SHADE TREES.

It is a marked peculiarity of the native population of Massachusetts, those especially whose ancestors have been indigenous to the soil for two or three generations, that they exhibit a very close conformity in habits, customs, manners, ways of business, ways of thinking, and general views.

This conformity of thought and action has originated an apt phrase to designate it in the expression, "a Boston notion." This peculiarity is, perhaps, as manifest and striking in our farmers, as in any other part of our population. One follows another, neighbor imitates neighbor, and son continues the practices of the father, without inquiring into the reasonableness or advantage of the practice, or if he inquires, it is generally to sustain himself in his course by the authority of his progenitors, or that of some distinguished living man, more often than by the force of unprejudiced argument or impressive fact. There is a great uniformity in the crops raised, and in the mode of cultivation, though the discrepancies in the statements and opinions of farmers would often lead one to opposite conclusions. This disposition is carried out in the planting of shade and ornamental trees, and the general mode of adorning the "front yard."

The house is generally placed at from ten to forty feet from the dusty road, as if there were not room on the premises for the family edifice; and if the proprietor concludes to go into any extravagance beyond the paint pot, two or four trees are selected, which are almost always of one species, to secure uniformity, and planted in a mechanically straight line for the same object. Formerly the favorite tree selected for this purpose was the Lombardy Poplar, the most unsightly of all the trees, and odious for the armies of innumerable hairy caterpillars, whose favorite resort it was. Here and there stands one now, straight as a mackerel, reminding us of the female costume in the pictures, before moreen petticoats were in vogue, and when cotton was too costly to set off the "human form divine," in new humps and graces. Previous to the day of the poplar, the elm had generally been the chosen tree, and that has again succeeded to favor since the poplar has fallen into merited disrepute. The elm is certainly a beautiful and majestic tree. In these attributes it is not surpassed. It is not in good taste, however, to observe the rule of uniformity by using only one species. Several should be used, different species intermingled, and set in disorder, not in linear order. If, however, one species were to be the sole ornament to a rural house, there are trees which have claims quite equal to the elm. The pine is a tree not surpassed in beauty, has the advantage of continuing through the year in foliage, and has the most agreeable and wholesome quality of drying the atmosphere where it stands, and of giving out a delicious fragrance. Other evergreens, the fir, spruce and larch, are beautiful trees. The walnuts, the chestnut, the scaly-bark, hickory, in addition to the recommendations of being handsome trees, yield pleasant fruit. The wild cherry, also, does the same.

Some of the oaks, the beech, the fragrant birch, called the black-birch, the ash, a stately and beautiful tree, and for a pleasing variety the holly and red cedar, the locust, red maple, linden, and others, are all worthy to do their part in adorning the farmer's ground, and are capable of giving a higher degree of ornament than the most finished and elegant architecture,—and that without much cost.

For the New England Farmer.

MORE ABOUT POTATOES.

By a notice on page 48 of the current volume of the *N. E. Farmer*, it appears that T. D. Merison, of Hill, N. H., claims to have discovered a *certain remedy* for the potato rot; at least one may readily suppose that friend M. considers it an infallible remedy, from the fact that he has presented his claim for the "$10,000." Now I do not wish to infringe upon his rights, or upon those of any other individual, but I will inform him that his theory has been in vogue several years, and with a view to test its correctness, I tried some experiments last year,—the result of which I offer for the benefit of others.

I planted a piece of ground with potatoes, on the *north side* of a shed, and on about half of the piece I planted two or three kernels of corn in a hill. In my corn-field I planted a bushel or more of potatoes, a few hills in a place, so that the potatoes were pretty well shaded. A part of the same piece was wholly planted with potatoes. On a third piece I planted potatoes at the north side of a wood lot. None of my potatoes rotted badly. Those near the shed, and in the hills in which corn was planted, showed quite as strong symptoms of infection as those in the hills where no corn was planted. So with those in the corn-field; some hills had but few *sound* tubers in them, while in others there were but few *decayed* ones. But very little, if any difference was observable between the potatoes growing *amongst* the corn, and those growing ourside of it. The third piece gave similar results. Only a few infected tubers were found, but those growing nearest the woods were not entirely exempt. Nearly all my potatoes grew on light, sandy loam. Now I think I have given the *shade theory* one fair trial, and as it did not entirely prevent the disease for which it is recommended, I shall enter my protest against the payment of the premium *until after another trial.* I

hope farmers will not accept *any* theory, without *practical proof*. If, by experiments carefully made, it is found that *sheds*, *board fences*, or *corn-stalks*, are a *sure* preventive, then, if the originator of the theory *can be found*, let him receive the reward. Patent medicines are apt to yield a good profit to the inventor, but I do not believe any one yet proposed for the cure of "this vegetable cholera" will greatly replenish the pockets of him who offers it in market.

Prof. Hoyt, in his able essay upon the "Potato Rot," recommends mowing the tops close to the ground. In 1848 I had a small piece of potatoes in which the blight began to appear. I took a scythe and mowed the tops on a part of the piece, having heard that that would arrest the disease. The result was, that *every potato*, I think, in the hills from which the tops were cut, was *entirely rotten*, while on the remainder of the lot a considerable portion were sound. Hence it appears that similar experiments produce different results in different locations,—positive evidence that the *true* remedy is not yet found.

LEVI VARNEY.

Sandwich, N. H.

LEGISLATIVE AGRICULTURAL MEETINGS.

TWELFTH MEETING—TUESDAY EVENING, APRIL 12, 1853.

The twelfth and concluding meeting for this year was held at the State House on Tuesday evening, His Excellency Governor CLIFFORD presiding.

Mr. PROCTOR, of Danvers, previous to the opening of the discussion for the evening, submitted a motion to the effect, that the Secretary of the Board of Agriculture be requested to call a meeting of the friends of agriculture, at the commencement of the next Legislative session, for the purpose of organizing such a series of meetings as will be best calculated to advance the cause of agriculture. The motion was unanimously adopted.

The subject for the evening's discussion was then taken up, viz: "The obligation of the State to afford additional encouragement to the farming interest, and the best means of doing this."

Governor CLIFFORD, in opening the discussion, remarked that he could not, with any consistency, or with any deference to his own interest in the subject of agriculture, have failed to respond to the invitation extended to him to preside at this meeting. He felt, however, that his position was that of a listener and a learner, rather than a teacher. Yet no one could doubt that the subject would almost spontaneously give rise to some of the best thoughts in the minds of those who are interested in the prosperity of the people of this commonwealth.

The Legislature, within the last year or two, have manifested, what the people too have begun to feel, a new interest in the subject of agriculture, and the establishment of the Board of Agriculture is an indication that that interest has begun to put on the form of active, intelligent and efficient effort for the promotion of that great cause. That it shall be intelligent, is, after all, the great object to be gained. There can be no indisposition in those who meet here in discharge of public duties, to do everything in their power to promote the cause of agriculture; the point is, that they shall have a clear understanding of what may conduce to that end. With an intelligent Board of Agriculture, there will be brought before the Legislature and the people of the commonwealth, such information as will leave no hesitation on the part of the Legislature in carrying proper measures into effect. The speaker thought the selection of a Secretary to the Board had been fortunate, and spoke very highly of that gentleman's qualifications for the office.

How far it was practical for the government to give direct aid to agriculture, or to any other department of industry, was a question of such a broad nature, involving so many considerations that are not perceptible to a cursory examination, that he would not enter upon a discussion of it. But there is no doubt that whatever government can do to foster and stimulate the *education* of the farmer, is within the legitimate scope of her duty.

There seems to have been among men an idea that there were two classes of minds in the world who draw all their powers of usefulness directly from nature—these were the farmers and the statesmen, two classes of persons whose ultimate objects are, or should be, the same, to scatter plenty over the smiling land. To accomplish this, there seems to have been an idea that every man has been born into the world full-armed,—that he does not require special education to be a farmer or a statesman. Almost every one of us feels competent to solve the most knotty questions of public policy, and in our popular assemblies, measures which reach in their results far into the future and puzzle our wisest statesmen, are discussed and decided in the most flippant manner.

So with farming. What other occupation to which the energies of man are devoted, is deemed to be sufficiently answered in its preparation by the education which has heretofore been given to our farmers? If a man were intending to make a lawyer of his son, he would put him through a regular course of study. But what is there analagous to this, in the education of our agricultural population? Is there anything like a systematic education for the farmer? Does not the possession of unusual intelligence and enterprise lead a young man to leave his father's farm, as being better fitted for some other profession? Gov. CLIFFORD thought he could see in the future a state of things where the education of a farmer's boy to a farmer's pursuit may be made so attractive to him as that he shall have no temptation to leave that noblest of all occupations which the Almighty has given to his creatures. His intellectual nature will be satisfied in the studies

which belong to the scientific and truly intelligent agriculturist. Why should it not be? Why should it be taken for granted, because a young man exhibits signs of remarkable talent, that he cannot live a farmer? All professions look to this pursuit for their final reward. As soon as men in other callings obtain a competency, their thoughts turn towards retiring upon a farm. This shows that the cultivation of the earth is congenial with the natural tastes of man.

The remedy for this desertion of farming by the young men, is to educate them for the practice of farming, as other men are educated for their pursuits; and it is too late in the day to say that if you give them the taste for higher departments of thought and of action, it will create a distaste for muscular labor. How this education shall be carried out, His Excellency thought would be wisely answered by the Board of Agriculture. He believed it to be one of its most important duties to give an answer to this question, and once answered, he believed the government of Massachusetts, in whosoever hands it might be, would not fail to second the accomplishment of such an object. What the State will do, will depend very much upon the manner in which the Board of Agriculture shall discharge its duties.

Mr. Proctor, of Danvers, expresed his gratification at the views of His Excellency. He thought there was much difficulty connected with the question of "How shall the farmer be educated for his calling?" He would suggest that something might be done through the medium of the county Agricultural Societies of the Commonwealth. Places are needed for the trial of experiments in farming, because farming in books without experience amounts to nothing. You may read and philosophize to the end of time, but if you do not plant and watch vegetation, science is good for nothing. Each of these county societies has a fund, raised by assessments on its members, and by subscriptions, and if that fund amounts to the sum of $3000, the State gives 20 per cent. on that amount to the society, which is $600 per annum. He thought a part of this fund might be advantageously invested by the societies in model or experimental farms, which might be made to yield a good interest and at the same time afford excellent facilities for the instruction and improvement of the farmers of the Commonwealth. These farms he would have under the management of the different societies, subject to an annual visit from the Secretary of the Board of Agriculture. Let them be required to furnish annual reports to the Board, and let the different records thus obtained be brought together and compared, and conclusions deduced therefrom. He thought it would be well for the State to see that these funds were appropriated in this manner, and specific donations made on the recommendation of the Board.

Mr. Sprague, of Duxbury, alluded to the necessity for definite information among farmers. It is highly important to establish principles in agriculture. In making experiments some farmers succeed, while others do not, but the reasons of the success and of the failure are alike unknown to them. If by establishing a Board of Agriculture great leading principles can be definitely fixed, the work is begun, and the end is certain.

Mr. Walker, of North Brookfield, considered an experimented farm in an agricultural community to be a matter of economy, as experiments can be made more accurately and are therefore more reliable. He also forcibly urged the establishment of farmers' institutes as a most important means of diffusing sound agricultural information.

Mr. Wright, Secretary of the Commonwealth, made some interesting remarks in relation to the improvements which have been made during the last ten or fifteen years in farms and farming implements, and eloquently set forth the advantages of furnishing the farmer with a thorough, practical education.

Mr. Flint, Secretary of the Board of Agriculture, alluded to a remark made by the distinguished Professor Johnson of Scotland, in one of his works, that New England was eighty or ninety years behind Scotland and England in farming, and that they could and would maintain this superiority. He thought the Professor might not have taken into consideration all the circumstances. In his country all the land is owned by 33,000 persons, noblemen, gentlemen, lawyers, and the like, and of the three millions of laborers not one owned a rod of soil. These 33,000 proprietors can command the most eminent talent in agricultural knowledge, while the American farmer has not the necessary means. With us the desideratum is to perform the greatest amount of labor with the smallest amount of capital. But while we have something to learn of European agriculturists, perhaps they have something to learn of us.

Mr. Flint thought the agricultural interest should be the leading object of public regard, and he believed that if farmers gave expression to their wants they would be met. The only way to recruit the energies of our exhausted lands, is to increase the diffusion of agricultural knowledge. He stated that the State had dispensed $10,000 during the past year to the county agricultural societies, and he was not sure but this was the best method.

Mr. Brooks, of Princeton, said that model farms might answer very well for certain purposes, as experimenting on the best food for stock, &c., but they are not good for determining all farming operations, because the soils of different farms and the soils on a single farm vary so much, that the experiments would not always be safe guides. His idea would be to have an experimental farm under

the control of the Board of Agriculture, where experiments in feeding stock might be made. On the farm he would have a chemist, paid by the State, who should furnish farmers throughout the State with analyses of soils, on condition that they should experiment on their own farms. By this means experiments will be obtained all over the State, and in much greater number than in any other way. The farmer, too, would collect his facts on his own farm, and from his own experience. If any of these experiments failed, they would be explained and corrected by the Secretary, who could afterwards collect and publish the results thereof.

Mr. BROWN, of the *N. E. Farmer*, considered the inquiry, what shall the State do, an important question to be answered; and he had an opinion in relation to what the State might do, and that with great advantage. The State may establish somewhere in the Commonwealth an experimental farm — which may be the poorest land to be found anywhere—at a small expense, and cultivate it in such a manner as in the end to incur no expense whatever to the commonwealth; the income of the farm itself, and increased value of the land which it might eventually spare, repaying every dollar invested in such a purchase. He agreed with the gentleman from Princeton that such a farm would not be a criterion for the whole State, but it might be of great benefit in some respects, and particularly such as the kind of stock to be reared, and the manner of feeding it—a subject of great importance, and of which very little is known. Although he had had many years expeperience in feeding stock, he still felt ignorant of the true principles to be adopted, and was not confident that he was pursuing the best plan. There are a great many other experiments which might be made on such a farm.

Another thing he would have the State do, was, to make an impression on the general government. He would not ask, at present, for the establishment of a department or bureau, at great expense, with its head as a cabinet cabinet officer, and a corps of clerks, but he would have our charges, consuls, naval officers, and all scientific persons paid by the government, instructed to make researches into the state and practice of agriculture in the countries they visit; to collect seeds and plants of every description which might be considered useful here, and return them to the government, together with such reports as their opportunity and ability had enabled to draw them out. These collections could be referred to the proper officer, and make a part of the annual agricultural publication issued by the government, or referred to such of the state societies as would engage to prepare and publish the reports, or experiment with the seeds and plants.

Mr. BROWN said it had been remarked that "the good time" was coming for the farmer, but he declared that the glorious day had already come, for the great point in securing his prosperity was to soften his prejudices and gain his good will; he believed that time had arrived. We have gained the public ear, and people are willing to listen and read. Scientific effort had been looked upon with distrust; the term science has been made a gorgon's head to frighten people from experiments and books; but the partition wall is now broken down, and when the dust and rubbish is cleared away, we shall go on in the clear light of rational progress.

The hour of nine having arrived, Governor CLIFFORD brought the discussion to a close, with a few remarks, in the course of which he expressed his pleasure at the remarks of Mr. BROWN in regard to the breeding and feeding of stock, that he was not satisfied with what knowledge he had in the matter. We should adhere to that idea, and not be satisfied with present attainments. In this we have the best assurance of future improvement. These discussions are sufficient evidence that the course of agriculture is in good hands.

At a few minutes past nine o'clock the meeting adjourned, *sine die*.

For the New England Farmer.

SHOVELDOM.

MR. EDITOR:—Enclosed you will find a most interesting article from the *Christian Register*, on "*Shoveldom.*" Everybody who ever used a shovel in America, must have known something of O. Ames & Sons' shovels Easton, Mass. This tells (after the manner of Dickens' Household Words, in describing the manufacture of nails or tacks and other articles) how they are made. Being a native of the adjoining town, I have always understood from my youth up, the cause of the great reason of the success of the Messrs. Ames to be, that "*whatever they thought worth doing at all, was worth doing well.*" Here is a practical and ocular demonstration of the capital working of such a motive power and principle. Many hard days of shovelling has the very hand which traces these words done with Ames' shovels. But considerably more than half of my life has since been spent in Boston, endeavoring to shovel up dollars and cents, and in all my experience, I can truly say, that if the instruments of my work were as perfect as that article, and if the motive power or motto above had been more strictly adhered to, my success would have been greater. W. R. B.

"Pardon a brief descent to details, gentle reader, and imagine yourself holding in your hand a bran new "Ames's Cast Steel Shovel," to serve for a text. Do you know that useful tool is the result, by virtue of a wise divison of labor, aided by apt machinery, of some *forty* different processes, not including the make of the handle, which came with millions like it, from Maine, where trees are plenty! Such is the veritable fact. Space will not allow of minute description; but a few items will furnish convincing proof.

In the first place by a knife of irresistible edge

as it obeys the irresistible force of the "water power," a plate of the right size is cut from a sheet of steel as if it were a sheet of silk before the scimitar of Saladin. Two more similar clips from two similar knives gives the right outline for the shovel. To remove the "black scale" the plate is ground on a grindstone; then it is punched for the rivets which are to hold the back and front straps to the blade; then, after having been heated, its surface is shaped by pressure between two dies with a weight of about 1200 pounds. Next comes the "setting" done by hand, to remove "wakes," straighten sides and correct twists. A vitriol bath to remove scales, and a vigorous polishing on wheels covered with emery, dismisses the plate for the present, and leaves us at liberty to prepare the "straps" needed to bind it to the handle. These are cut, rolled, sheared, pounded, levelled, shaped, annealed, polished, countersunk, &c., mostly by ingenious machinery, and then they are riveted to the front and back of the shovel, close as you see them, fitting like a glove that fits as a well behaved glove should.

We move on now to the handle shop. The two holes for rivets in the head of the handle are bored at once, by bits revolving two thousand times a minute. The "bending" to give the graceful curve and right balance for easy working, is an amusing operation. The lower end is boiled for an hour or two to take the obstinacy out of it and make it pliable. When it is soft enough to be docile and manageable, it is placed between two iron blocks, with the rightly undulating grooves and connected by a hinge, as a lemon is put into a squeezer; and then the blocks are brought together by a powerful pressure and fastened, and so the prisoner is kept encased until he grows cool and promises never again to straighten himself out. With this underatanding he is released and put away for three weeks to dry, and get thoroughly seasoned for the laborious life before him. How the caps to the rivets and the rivets themselves are made, how the handle is inserted between the straps and screwed and wedged, how all rough edges are filed down, and wood and iron rendered agreeable to the hand,—how the plate is scoured and all metal parts of the tool burnished, and the shovel complete is made bright, clean and trig ready for inspection—we have neither time, room, nor descriptive power to tell. Suffice it to say that such facility and perfection has been attained in the manufacture of the respective parts, and such the number of persons employed, that on the average a shovel is made now in less time than it once took to bore the holes through the head of the handle. Experiment and ingenuity and industry have achieved this really marvellous result in this model establishment, whose name and fame are such, that it has not been able for years to fill all its orders or to supply the demand for its products. This success is greatly due to strict observance of these principles, viz: 1, that the labor shall be divided into as many distinct processes as possible; 2, that each man shall learn but one process, and learn that thoroughly; 3, that each workman shall be paid so much per doz., for his work—so if indolent he shall be the loser, and if industrious the gainer; 4, that the shovels shall be inspected at every stage of their manufacture, and when they are finished, in order to guard against poor work; and 5, that none but the very best materials shall be used.

Of the statistics, of "Shoveldom" it is enough to say—omitting all reference to its indirect effects,—that it uses each day 4 tons of iron and 2 tons of cast-steel,—it employs 250 men, paying them from 5 to $6,000 per month in wages,—turns out more than 2000 shovels of various styles and prices per day,—and sold last year something like $600,000 worth of its fabrics. In view of these figures were we not right in designating "Shoveldom" as a kingdom; and who will deny that its liberal-minded, intelligent and enterprising proprietors, have been and are, in the way of business, benefactors to the community, by furnishing employment to so many operatives, creating as it were a thriving town, and equipping armies for the peaceful physical conquests of the times? No one certainly who has visited their establishment.

WEALTH OF THE UNITED STATES.

The property, real and personal, in the United States, is estimated by the census at $7,133,369,725. This will make an average of between $300 and $400 to each individual, or $1,800 to each family. Upon this the Providence *Journal* remarks:

"Considering the great distribution of wealth in comparison with the accumulation of foreign wealth in few hands, this shows a degree of material prosperity which, we presume no other country can approach. The fourth of July talk about our being, "as we ourselves have voted," the freest and most enlightened nation on earth, is not an idle boast. It is literally and strictly true. No where else is there so much freedom; no where else is intelligence so generally diffused, although in many parts of the world, science and learning are carried to a far greater height; no where else are the physical comforts of life so widely distributed among all the people, and these comforts are the only sure foundation of moral and intellectual improvement.

"How deeply it concerns us to guard this great inheritance, and to transmit it as we have received it. Most of all can we do this by assuring the prosperity of the country in all the peaceful arts, in the development of its mighty resources and in all its means of contributing to human happiness and human advancement. We cannot do it by an insane desire for territorial aggrandizement, by unscrupulous means of extending our area, and by bad faith with the nations around us. Never was the course of power and greatness more plainly marked out to a people. It will be sinning against the light of Heaven if we fail to pursue it. Our punishment will be as well deserved as it will be signal and severe."

Remarks.—We have no doubt that the statements made above are true, and the reflections on them are certainly just. And yet, amidst the abundance so liberally bestowed by Him who controls all things—amidst such fertile soils and congenial seasons, pouring into the lap of industry more than enough for all, if their products were more equally distributed, how many languish and suffer for want of employment and food, and a *permanent home!* With all our freedom, our excellent institutions, our safe and wholesome municip-

al arrangements, with all the efforts of the philanthropic and good, there is still suffering and sorrow all around us that ought not to exist. Our social organization is still extremely imperfect. There is immense loss and worse than waste, from the indulgence of morbid appetites, and constant and heavy expenditures for defence against criminal and foreign invasion of the public peace. How these evils are to be remedied, is a question demanding the earnest consideration of all. With those who are correct in their habits and who are industrious, there should be no suffering for want of food or shelter; and yet, this is the very class who suffer the most; who, having honor and position to lose, shrink from the rude gaze of the world, and suffer on in silence rather than ask charities which are too often grudgingly doled out. We express no new zeal on this subject, but speak of what we know to exist.

It is for the interest of all that all should possess permanent homes, be well fed and clothed and be happy. Let each strive to accomplish this for himself and his neighbor, and the world will soon present a new aspect.

For the New England Farmer.

PLASTER.

It is not unfrequently that we hear farmers extol the virtues of plaster in imparting a more vigorous growth to vegetation, while others, equally well skilled in practical agriculture, declare they can see no improvement in their crops by its use. One contends that plaster increases the clover on mowing fields, without any essential benefit to the other grasses; another is sure his potatoes are benefited by its uses, while his corn looks as if consumption mortgaged it, if he depends entirely on plaster to manure his crop.

In looking over the proceedings of the Legislative Agricultural Meeting, March 22, the value of plaster, I perceive, was generally appreciated, except in the county of Plymouth, where the speaker said no effect could be seen from its use except on potatoes.

Mr. SMITH, of Hadley, was sure it would lose its efficacy if applied to the same piece of land for a series of years without the aid of other manures, while Mr. FAULKNER had found the use of plaster to produce the same effect from year to year, even for fifty or seventy years.

Farmers hereabouts agree that a pasture should be lightly stocked after plastering, in order to give the grass a start; this I believe is true, whether plastered or not, and I believe Col. FAULKNER hit the nail on the head when he said he considered the great cause of sterility in pasture lands to be in overstocking them. Grass grows but very little in April, or the first half of May.

Why some fields become green sooner than others in the spring, is because more grass was left on them in the fall; the grass does not grow, but the withered blades turn green. So if the farmer plasters his pasture and takes out half his stock he sees an improvement in the pasture which he ascribes to the plaster, when the cause may be attributed to the stock. I believe our old pastures need something more than plaster. Many of them are trod exceedingly hard, and the grass roots are short, where the moss has suffered them to remain. Let such land be thoroughly plowed two or three times, and liberally manured, in return for what has been taken from it, the grass roots could then descend to the subsoil and the moss would be ashamed to grow without the aid of plaster.

I would not be understood to say there is no virtue in plaster as a manure; I only say I have not been able to discover its effects. I think it very harmless; it may attract the heat of the sun and force the grass along in the spring. Pick up the stones that have fallen from your walls in the spring; you find the grass higher around them than elsewhere. The question then should be, is it profitable to buy plaster at five or six dollars per ton for manure? Is it profitable for the farmer to buy that for manure, which will not afford him a crop of Indian corn, even if he put a cart load to the rod?

Some years ago I planted a field with corn which others had also planted with the same crop before, and witnessed astonishing effects of plaster. After dressing the same with barn-yard manure, I plastered every hill of the field excepting one row through the field, putting a stake in said row. I harvested the same in autumn, and but for the stake, should not have known the row which did not receive its quota of plaster. Still I may be prejudiced against the use of plaster, and cannot see its favorable effects; while others having favorable opinions, may think they perceive improvement in their crops from its use, when in reality there is none, or if there is, it may be the result of some other cause. H. FOWLER.

Stowe, March, 1853.

For the New England Farmer.

TAKING HONEY.

MR. EDITOR: — Report says a new method prevails in many places of obtaining honey annually without destroying the bees. The method is somewhat thus:—The hive is suddenly turned over and a new one placed upon it, then by drumming lightly with the hands on the old hive, the bees ascend into the new one, when it may be slipped off and treated precisely like a young hive, leaving you in undisturbed possession of the old one. The advantages are these:—The bees are preserved, and the honey obtained is of superior quality, the comb never becoming dark colored, as is often found in hives that have stood a few years.

Now can you or any of your readers give any more definite information concerning this method, as to the time of year; also, what time in the day is preferable. I should suppose the early morning, or after the bees are still for the night. I should like to know, also, if there was not great danger of the bees leaving the new hive and going away, and if they are not reluctant to leave the old hive.

BENJAMIN STETSON.

Hanover, 1853.

THE STONE GATHERER.—We would inform our young friend that we have no engraving of the machine by which stones are gathered from the fields; a description of the manner in which it is operated was given in the Monthly *Farmer* for August, 1852.

BRUSH SEED SOWER.

The raising of roots for feeding stock, as well as for culinary purposes, is becoming quite common with most farmers. This we are glad to perceive, and shall endeavor to afford such suggestions from time to time as will enable the cultivator to produce root crops at a less cost than he has been able to heretofore. Sowing small seeds by the hand is an exceedingly slow, fatiguing operation. It is necessary to stoop in order to drop the seed into the drill, or it is liable to be blown away by the wind. Then the process of covering is slow and uncertain. But with a good machine one may sow and cover an acre in a few hours, and so evenly, both as to distance and depth, that if the seed is good, scarcely one shall fail to come up, and come in the right place.

We have in use a machine like the one represented above, and find it portable, easily kept in order, and *certain in its work*. Well, that is all which is desired of it *as a seed sower*. But we will venture to suggest to the enterprising manufacturers, *Ruggles, Nourse, Mason & Co.*, whether they cannot so arrange them as to *unship* the sowing and covering part, and in its place supply works *to weed and cultivate the crop* with less than one-half the labor that is now required to do it by the hand. We believe this may be done so as to make the frame work answer both purposes well.

The Bee Moth.—Such of our readers as are engaged in the bee culture will be glad to learn that a remedy has been discovered which effectually prevents the ravages of the bee moth. The frequent and serious injury caused by this pestiferous insect has deterred many persons from entering into the business of raising bees, more especially as in some localities the ravages have been so great as nearly to destroy both bees and honey. The plan is this: Split joints of cane through the centre and arrange them on the four sides of the hive, with the split side resting on the platform. The moth, instead of depositing its eggs under the edge of the hive, will lay them under the split cane. From these depositories they may be removed and destroyed as often as necessary with little trouble. A friend informs us that he knows the plan has been tried and found entirely successful.—*Mobile Tribune.*

For the New England Farmer.

MODEL FARMS, &C.

In what manner can the State beneficially aid the farmer?

This inquiry lies at the foundation of all our action. During the discussions of the present season, there has been an endeavor to avoid the introduction of this topic; and to direct the attention to subjects of a practical character. This has been done, because we would not presume to dictate to the powers that be; and would willingly leave to those in authority, the determination of these matters. It was long ago said with emphasis, that "a cat might look upon a king"—much more then, may the people make suggestions to their rulers; who are the rulers—but the people themselves?—for who does a thing by another, is himself responsible therefor.

Educational Schools and *Model Farms* first occur to the mind, when this inquiry is made. Without doubt, much might be done, in both these ways. Much has been done, in other countries, by the establishment of schools, for the education of the young farmer—and we have the benefit of their examples. If there could be any assurance that those thus educated here would continue to apply their improved energies to the labors of the farm, there would be some encouragement to give this instruction. But in this land of freedom and of enterprise, where every one is his own master,—*three chances out of four*, as soon as the boy is well prepared to take the superintendence of a farm, he will be off, about something else; and it will not be, until all his visionary plans of advancement have been foiled, and his own physical energies spoiled, that he will learn that it would have been better for him to have applied himself constantly upon the farm. Many learn this lesson, when it is too late to profit by it. It is too common for boys of enterprise, to think that the *drudgery of a farm* is not suited for them;

and it is equally common for parents to countenance such thoughts—their own pride is flattered with the idea that if their sons can be seen and heard, making a noise in the world, it will in a measure redound to their own credit.

As to *model farms*—how could our County Societies do better, than to take the care and direction of such a farm—each, within their own limits? Most of them have funds ample for the procuring of a farm—and the presumption is, if discreetly purchased, it would continue to be worth what it cost. I know of societies, that for 20 years, have had funds to the amount of *eight or ten thousand dollars*—why not judiciously invest these funds in a farm? Will it be said, that no investment of the kind can be made that *will pay?* That the societies cannot get along without the income of their funds? Is this true? If it be, is it not a most discouraging fact? It certainly is not true, that all farms are unproductive; for numerous instances can be found, in all the counties of the Commonwealth, where individuals have become independent, by the operations of their farms alone. Then, it must be that associated bodies cannot conduct farms so advantageously as individuals. This may be true to some extent *in farming*—but it is not true *in manufacturing*—in this class of industry, the most successful examples are usually found, in associated enterprise. The same would be true in farming—with labor properly directed. If not, let the first movement of the society be, when their farm is purchased, to select an individual of best promise, to take the management of it; and let the trustees hold their monthly meetings, at the farm, not for the purpose of instructing their farmer, but to improve themselves by observing his management. Such an arrangement of model farms, in each county, under the supervision of the County Societies, with a detailed statement of their entire management and products annually *made, revised* and published by the Secretary of the Board of Agriculture, would, in my judgment, at the present time, be one of the best modes of advancing the interests of the farmer.

Much is said about the application of chemical science to the operations on the farm; and the benefits to be derived from an intelligent understanding of the constituent elements of soils. How is this knowledge to be attained? By study or by labor? I answer, by a combination of these.—Neither, alone, will be sufficient. A man may treasure in his mind all the learning of the books, and be a complete master of all the manipulations of the laboratory; still, without *real experiments* illustrative of the principles thus acquired, he never can be confident in his own knowledge. A man may know all the elements to be found in the analysis of Indian corn, for instance; but still, until the growth of it has been tried upon the field—he cannot say whether or not, it will succeed. The food of plants is not found entirely in the *earth beneath*—the *heavens above* contribute their portion. Therefore, no analysis of the ground alone will ever be a sure indication of the result of the cultivation of a particular crop. All such calculations are based upon the supposition, that other things being equal, and that they will go on, in the ordinary way. Is it not certain that a given quantity of rain is necessary for the production of a crop of corn? Whoever knew a field of corn come to maturity without rain? But it may be said, the rain will of course come—because it always has come. True, what has been, probably will be. But not necessarily so. Who can say that the dews of the night, are not essential to the maturity of a crop? No one will presume to say that they ever knew a crop come to maturity without being moistened by such dews. Then who can say that the dew is not the one thing needful for perfecting the crop. But the analysis of the elements of the soil gives no information as to the rain from above, or as to the dew of the atmosphere. Who will presume to say, that the electric fluid which pervades all space, has not something to do with the growth and maturity of plants? If I do not mistake, theories have been started, tending to show that *electricity* is an essential element in the growth of plants. And plans have been proposed of advancing their growth by electrical operations. But I am not aware that Chemistry or Philosophy, have as yet defined with any precision, the laws of Nature in this particular. Perhaps when we fully understand the transmission of ideas from shore to shore, by means of magnetism, we shall better comprehend the power of electricity in the growth of vegetables.

If it be true, as learned professors, not of Massachusetts, particularly, confidently assert, that the soils of our fields can be so subdivided and analyzed, that their productive powers can be estimated, with as much precision as the hours of the day can be numbered, it is high time this were known, and the means of doing this placed at the command of every cultivator. Where in Massachusetts can this science be attained?—Where can a young man go to learn practically the sure method of analyzing soils? Can it be done at Cambridge, the fountain of knowledge for New England. It may be, that it can be there acquired; but I have not had the good fortune to meet any of the sons of Cambridge thus learned. Can it be acquired at Amherst? If so, who will teach it? President Hitchcock and Professor Nash say, they themselves are anxious to acquire the art. They do not profess to know it. They are modest, honest, sensible men, willing and ready to tell what they know, and nothing more. Would others, in like position, do this and no more, science would be respected. But when the learned mingle the marvellous with the real, and thus impose on the credulity of those whom they address, they very soon cease to command respect.

P.

April 12, 1853.

How to Raise Fruit every Year.—If rightly understood, few trees, unless absolutely dead or rotten, need occupy ground, without yielding a plenteous crop. After a long and varied series of experiments, I gradually adopted the following mode: As soon as the winter has sufficiently disappeared, and before the sap ascends, I examine my trees; every dead bough is lopped off, then, after the sap has risen sufficiently to show where the blossoms will be, I cut away all the other branches having none on, and also the extremity of every limb the lower part of which bears a considerable number of buds, thus concentrating the sap of the tree upon the maturation of its fruits, and saving what would be a useless expenditure

of strength. In the quince, apricot and peach trees, this is very important, as these are very apt to be luxuriant in leaves and destitute of fruit. You may think this injures the trees, but it does not; for you will find trees laden with fruit, which formerly yielded nothing. Of course, all other well-known precautions must be attended to; such as cutting out worms from the roots, placing old iron on the limbs, which acts as a tonic to the sap, &c. Try it, ye who have failed in raising fruit.—*Farmer and Mechanic.*

THE GOOSEBERRY.

HOW TO RAISE THE HANDSOMEST PLANTS OF THE NATIVE VARIETIES.

In the early spring of 1849, when the buds of the wild gooseberry began to burst, I took an April sylvan excursion through damp places, and with a sharp pruning knife cut as many vigorous and clean shoots as I could find, from the different kinds of the much neglected native gooseberry.

Having made a large collection of cuttings for the purpose of propagation in a nursery bed, I cut them short—one foot long—rejecting the tender parts and trimming all the buds off, except three or four upper ones. Then I planted them in a rich, well trenched, and rather moist soil, 6 inches apart in straight rows. The soil around them was kept loose and clear of weeds by frequent hoeing, and in a good condition by occasional waterings. In the fall they were found very fine plants—strong rooted—fit for transplanting the next season; they shooted from 12 to 18 inches high the same season. To render the plants more vigorous, I clipped the tender ends of the limbs, trimming them in the form of miniature trees.

The second year they yielded a plenty of nice fruit, of a double size. The third year all the plants were heavily loaded with still larger berries of different colors and flavor. Last season I picked fifty quarts of much larger gooseberries, beside what were eaten by my friends and visitors to my fruit garden. Some of my native gooseberries seemed much larger than Houghton's seedling gooseberry.

I know of no sort of gooseberry which promises so much, and seems so easy of cultivation, with so little labor, and so well adapted to our climate, as our native gooseberry. This gooseberry is, though very sweet, delicious and rich in its wild nature, much despised on account of its small size, in comparison to the pride of Lancashire Horticulturists, who have, by their unspared of pains of perseverence, improved the insignificant size and inferior qualities of their wild European gooseberry to a wonderful size and richness of flavor.

Are we, American horticulturists, who enjoy the blessings of undisturbed freedom on our virgin soil beneath a bright sun, slaves dependent upon a foreign nation for her horticultural skill in producing a celebrated species of gooseberry, which is so imperfectly suited to our climate? Why do not we try to do the same towards improving our native gooseberry, which is not only perfectly adapted to our soil, but also promises to pay well for whatever attention we shall be willing to bestow upon it? If our American apples are far superior to those of England, I can see no reason why we may not produce American varieties of gooseberry, superior—even far superior to those of far-famed Lancashire, by hybridding our native gooseberry with the choice sorts, and by repeated sowing of seed of fine kinds.—*Farmer and Mechanic.*

For the New England Farmer.

WHAT SHALL I DO?

EDITORS FARMER:—At the present prices paid for farm labor compared with that of mechanical, what inducement is there for a young man of talent and energy to follow farming?

In this section, bootmakers obtain for their work from $1,25 to $2,00 per day, while the *same* men could not command more than from $10,00 to $15,00 per *month* on *most* of our farms, and that only for the summer months. The old farmers hereabouts shrug their shoulders and complain bitterly at paying over $13,00 per month.

Now I would like to ask if you would advise me, or any other young man, who can get $2,00 per day at a trade, to learn it, or refuse it and work on a farm. I want to be a farmer, but when I consider that I am like thousands of other young men, starting unassisted, without money or land, I am almost discouraged. Most young men with whom I converse, own, that farming is the best business in the world, and say that they would farm it, if they only had land of their own. But as to working out by the month for 50 cents per day, they will not do it.

Now I wish to know if you can blame them, or call them unwise. C. W. A.

S——, Mass.

REMARKS.—If our young friend can actually earn more money, and can keep it profitably and securely invested, in some other way than by working on a farm, why, then, he had better spend a few years, perhaps, in some other employment. But if he intends to pursue farming after a while, he must be a close observer, thinker, and reader of farm matters during these years, and he will thus qualify himself for his future business while he is accumulating the means to engage in it. It is not desirable that all shall be farmers, but those who have a decided taste for farming should make all their plans tend that way; and there are, undoubtedly, various modes of obtaining a farm, beside working on one at fifty cents a day. If your opportunities enable you to get $2,00 a day, do so, until such time as you can invest your earnings in the spot which you intend to make a permanent home. But the subject is an interesting and important one, and perhaps some of our correspondents who have the leisure and inclination will speak of it more at length than we are able to at present.

☞ M. Eugene Sue states that in Savoy, all the farm-work of plowing and drawing, instead of being done by horses or oxen, is performed by milch cows, which work eight or ten hours a day, without the slightest depreciation of the quality or quantity of milk.

CONCORD FARMERS' CLUB.

The Concord Farmers' Club had its annual supper on the evening of the 19th of April, at the Town Hall. The evening was one of the most beautiful of the season, and about two hundred plates were occupied at the table. After spending one hour in social intercourse, the company came around the tables, which were very tastefully spread, about 9 o'clock, and after partaking of the good cheer which was liberally provided by Mr. SILAS HOSMER, the President called up Mr. SIMON BROWN, who gave a sketch of the origin of the Club. He was followed by Rev. Mr. FROST, who spoke of the progress which has been made in farming, during the past 15 years. After he had been in town 4 years, some one sent him a plate of cherries. He then remarked they were the first cherries he had seen in Concord. Now, not only cherries, but plums, pears and apples are very abundant, in great variety and in high perfection. He spoke of the fine barns with their cupolas, which had been mistaken for churches, and of the greatly improved appearance of farms, all over town, and then of the intellectual and moral effect of this progress in the cultivation of the earth.

Dr. REYNOLDS then gave a humorous sketch of the doings of the club, and enumerated the subjects in their order, which had come under discussion during the winter. His remarks were received with great enthusiasm.

Judge HOAR was then called upon. He spoke of the day and the events associated with it in the history of the past, of the example of our revolutionary fathers, and of the great obligations which we are under to them. They perilled their lives and all that was dear to them, and we, their sons, are reaping the rich harvests which have sprung from the seed which they sowed; and they have left to their descendants a treasure richer than gold. They have left a name that will be cherished, when the mere possessor of gold will be forgotten. They sowed in tears and blood, and the harvest is now being reaped by millions of freemen all over the land. He hoped the Farmers' Club would continue to select this day for their anniversary, and thus hand down to their children the memory of those farmers, who upon this day, in defence of their hearths and their fields, poured out their blood upon the soil of Concord.

Col. J. S. KEYES was next called up. He did not think it quite fair that all but the members of the Club should be called on to speak. He wished to hear from the farmers themselves. He was pleased with the festival; we have too few holidays. He was glad the farmers have instituted this gathering, and hoped it would be continued on this day. Such meetings have a good effect on our social feelings.

A humorous and excellent agricultural song was then sung by Mr. JOSHUA R. BROWN. He was followed by the venerable SAMUEL HOAR, who made some remarks upon the intellectual and moral effects of improvement in Agriculture and Floriculture. Mr. R. W. EMERSON made a short and pleasant speech, and was followed by W. W. WHEILDON, Dr. BARTLETT, C. W. GOODNOW and C. B. DAVIS.

The speeches were interspersed with toasts prepared for the occasion, and followed by volunteer sentiments; and at about 11 o'clock the company broke up, feeling the occasion had been a pleasant and profitable one. The young people were present in force, and although many of them are not engaged in agricultural pursuits, they were willing to give countenance to the Club, and hear something of the Great Art which feeds and clothes them in common with all.

We are requested to tender the thanks of the Club to the ladies and gentlemen of the town, for their attendance, for their efforts to make the evening a pleasant one, and for their kind expressions of approbation of the designs and influence of the Club.

For the New England Farmer.

A SHOWER OF MUD.

DEAR SIR:—Enclosed you will find a small package of a substance that I should like to have analized by some chemist, if you think advisable, for I should like to know of what it is composed, and where it came from, if the scientific world can tell. It came in my possession in the following manner: On the 8th inst., about sunset, there was rather a singular phenomenon visible in the heavens. On the morning of the 9th it commenced snowing—the snow, as it lay on the old snow, had a rather dark, or bluish appearance; it rained in the afternoon and froze a little the following night. The next morning I skimmed off the dark crust and melted a pailful of the snow; the water was highly colored, having a dark, bluish appearance. The package is the sediment that settled and was dried down by the fire. I could save but a small proportion of what was in the water, for it would not settle.

There must have fallen several thousand bushels in this State alone, to say nothing of what fell in others, if the storm was very extensive, and I should like to know what it is and where it came from.

S. OSCAR CROSS.

Kingsbury, March 19, 1853.

A PAINT FOR BRICK HOUSES.—A correspondent of the *Ohio Farmer* has used a cheap and very durable paint for the exterior of brick dwellings, which has already stood several years, and is now quite as fresh as when first applied. It consists simply of lime-wash, with sulphate of zinc as a fixing ingredient. Any requisite shade is given by adding the colors used by house-painters. A clear and rich cream color may be obtained by applying yellow ochre to the common new brick; a livelier and warmer shade will be added by a little Venetian red. Burnt sienna may likewise be used. This paint is far cheaper than oil paint, and costs but little more than common whitewash.

THE GOOD EFFECTS OF GARDENING.

"Gardening is a civilizing and improving occupation in itself; its influences are all beneficial; it usually makes people more industrious, and more amiable. Persuade a careless, indolent man to take an interest in his garden, and his reformation has begun. Let an idle woman honestly watch over her own flower-beds, and she will naturally become more active. There is always work to be done in a garden, some little job to be added to yesterday's task without which it is incomplete; books may be closed with a mark where one left off, needlework may be thrown aside and resumed again; a sketch may be left half finished, a piece of music half practiced; even attention to household matters may relax in some measure for a while; but regularity and method are constantly required, are absolutely indispensable, to the well-being of a garden. The occupation itself is so engaging, that one commences readily, and the interest increases so naturally, that no great share of perseverance is needed to continue the employment, and thus labor becomes a pleasure, and the dangerous habit of idleness is checked. Of all faults of character, there is not one, perhaps, depending so entirely upon habit as indolence; and nowhere can one learn a lesson of order and diligence more prettily and more pleasantly than from a flower-garden.

"But another common instance of the good effect of gardening may be mentioned:—it naturally inclines one to be open-handed. The bountiful returns which are bestowed, year after year, upon our feeble labors, shame us into liberality. Among all the misers who have lived on earth, probably few have been gardeners. Some cross-grained churl may set out, perhaps, with a determination to be niggardly with the fruits and flowers of his portion; but gradually his feelings soften, his views change, and before he has housed the fruits of many summers, he sees that these good things are but the free gifts of Providence to himself, and he learns at last that it is a pleasure, as well as a duty, to give. This head of cabbage shall be sent to a poor neighbor; that basket of refreshing fruit is reserved for the sick; he has pretty nosegays for his female friends; he has apples or peaches for little people; nay, perhaps in the course of years he at length achieves the highest act of generosity—he bestows on some friendly rival a portion of his rarest seed, a shoot from his most precious root! Such deeds are done by gardeners."
—*Miss Cooper's "Rural Hours."*

EQUIVALENT VALUE OF DIFFERENT KINDS OF FOOD.—The following table gives a synoptical equivalent value of different kinds of food; albumen representing the flesh-forming principle, and unazotized matter the fat-forming.—*Playfair.*

	Albumen.	*Unazotized Matter.*
Peas	29	51½
Beans	31	52
Lentiles	33	48
Potatoes	2	24½
Oats	10½	68
Barley Meal	14	68
Hay	8	68½
Turnips	1	9
Carrots	1½	8½

From the above table we see why pigs fed upon potatoes and barley meal soon fatten and keep in health; whereas, when supplied with potatoes only, they become fat, but are unhealthy. It will also teach us that the millk of cows, from which butter is to be made, would be benefited by mixing their food with steeped peas and beans.—*Topham.*

TO CORRESPONDENTS.

Thanks to L. W. C.,—*Southbridge, Mass.* Shall be happy to hear from him again.

To N. P. M.,—*Somerville.*—The beautiful apples left by you are probably local. You must give them such a name as your own fancy, or some peculiarity in their origin or growth, may suggest.

To G. N.,—*Bedford, N. H.*—The cause of your plum tree peeling was undoubtedly extreme cold. The sap froze, and in expanding, pressed the bark from the wood, and as far as this extends the bark will die. We have seen several trees affected in the same manner. A too vigorous growth is apt to induce this difficulty.

DANVERS WINTER SWEET APPLES—brought in by Dea. FOWLER, as hard, fair and beautiful as they were in December last. It is a valuable variety, but does not succeed equally well in all locations.

A YOUNG READER,—*S., Mass.*—If your grass seed mostly failed, the best way is to plow and sow again with an oat or barley crop. If killed only in patches, clover seed should have been sown in March. If the spots were sprinkled now with fine compost and herd's-grass and red-top seed, raked in, it will make the field even and give a partial crop this year.

We cannot inform you what kind of bee-hive is best. See notice in this paper of a new hive, which, to us, seems to promise more than any thing we have seen or heard of yet.

Make your soil deep and rich for strawberries. Manure from the pig-pen or hen-house is excellent. If your land is a stiff clay soil, horse manure, thoroughly incorporated with it, will be good. Cut the runners about the stool with a sharp spade, and pinch off the new ones until the fruit is well set.

To D. F. G., *Woodstock, Vt.* You must rely on the *natural resources of your farm to increase* its fertility. A little plaster, guano, bone dust, ashes or phosphate of lime may be tried on a portion of your hill pastures, with propriety—or they may be used on your corn or grain fields or garden, in small quantities, and on small portions of land, each year. It is unwise for the farmer to engage in new and untried schemes with costly manures, on an extensive scale. Use them moderately, if at all, and with the most careful observation. The whole subject has been repeatedly discussed in the *Farmer* within the last six months, and prices given, both in advertisements and editorial columns. "A reader of the *Farmer*" may obtain scions of the Hunt Russet, of Capt. NATHAN BARRETT, Concord, Mass. Don't know about the Pippin.

Ladies' Department.

THE SECRET OF MATRIMONIAL HAPPINESS.

Zschokke, in one of his tales, gives the following advice to a bride:—"In thy first solitary hour after the ceremony, take the bridegroom and demand a solemn vow of him, and give him a vow in return. Promise one another sacredly, *never, not even in jest, to wrangle with each other;* never to bandy words or indulge in the least ill-humor. Never, I say, never! wrangling in jest, and putting on an air of ill-humor merely to tease, becomes earnest by practice. Mark that! Next, promise each other, sincerely and solemnly, *never to have a secret from each other*, under whatever pretext, with whatever excuse it might be. You must continually, and every moment, see clearly into each other's bosom. Even when one of you has committed a fault, wait not an instant, but confess it freely—let it cost tears, but confess it. And as you keep nothing secret from each other, so, on the contrary, preserve the privacies of your house, marriage state, and heart, from father, mother, sister, brother, aunt, and all the world. You two, with God's help, build your own quiet world; every third or fourth one whom you draw into it with you, will form a party, and stand between you two. That should never be. Promise this to each other. Renew the vow at each temptation. You will find your account in it. Your souls will grow as it were together, and at last will become as one. Ah, if many a young pair had on their wedding day known this secret, how many marriages were happier than, alas, they are!"

FAMILY HARMONY.

1. We may be quite sure that our will is like to be crossed in the day; so prepare for it.
2. Everybody in the house has an evil nature as well as ourselves, and therefore we are not to expect too much.
3. To learn the different temper of each individual.
4. To look upon each member of the family as one for whom Christ died.
5. When any good happens to any one, to rejoice at it.
6. When inclined to give an angry answer, to lift up the heart in prayer.
7. If from sickness, pain, or infirmity, we feel irritable, to keep a very strict watch over ourselves.
8. To observe when others are so suffering, and drop a word of kindness and sympathy suited to their state.
9. To watch for little opportunities of pleasing, and to put little annoyances out of the way.
10. To take a cheerful view of everything, and encourage hope.
11. To speak kindly to the servants, and commend them for little things when they deserve it.
12. In all the little pleasures which may occur, to put self last.
13. To try for "the soft answer that turneth away wrath."
14. When we have been pained by an unkind word or deed, to ask ourselves,—"Have I not often done the same, and been forgiven?"
15. In conversation, not to exalt ourselves but bring others forward.
16. To be very gentle with the younger ones, and treat them with respect, remembering that we were once young too.
17. Never to judge one another, but attribute a good motive when you can.
18. To compare our manifold blessings with the trifling annoyances of life.
19. To read the scriptures every morning, and ask God's blessing to attend each member of the family through the day.

Advertising Department.

☞ A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

RATES.

For one square of 15 lines, one insertion.....$1,00
For each subsequent insertion.....50

☞ The above rates will be charged for all advertisements, whether longer or shorter.

A Card to Dairymen.

CLARKE'S EXCELSIOR CHURN is, beyond all question "*the best churn* for *large dairies*. The two favorite sizes, are $7,00 and $10 each. The latter size is suitable for ten to thirty cows, indeed, for *any* large dairy, as one hundred pounds of *first rate butter* can be produced in it, at three churnings, in less than one hour. It will be delivered on all paying orders, in Boston, New York, and Buffalo, *free* of charge for freight.

☞ *Every churn sent out is warranted* TO PLEASE! This new and saleable churn presents great inducements to capitalists and manufacturing companies to purchase State and County rights. For full description, recommendations, &c, apply at any time, to GEO. B. CLARKE, Patentee, Leonardsville, Madison Co., N. Y.

May 1st, 1853. 1m*

Sale of Short Horned Cattle.

I will sell by auction, at my residence, on WEDNESDAY, 8th June next, at 1 o'clock P. M., about thirty thorough bred Short Horned Cattle. About twenty of them are Cows and Heifers, the remainder young Bulls. Nearly every animal are the produce of the Imported Bull "YORK SHIREMAN" and 3d "DUKE OF CAMBRIDGE," bred by the late Thomas Bates, Esq., of Kirkleavington, England, and "EARL OF SEAHAM" and "VAN TEMPEST," bred by John Stephenson, Esq., of Durham, England, and are of his famous Princes family.

The upset prices of these animals will be from $150 to $360, as to age, &c., &c.

I will also offer the above named Imported Bull, "Van Tempest,"—his upset price is $1000.

TERMS—Cash, on satisfactory notes at three months, payable at the Bank of Auburn, with interest.

I will also have for sale at that time a few South Down Rams and Suffolk Pigs.

Catalogues will be ready about 15th March next, and will be found with

A. B. Allen, Esq., 89 Water Street, New York.
Sanford Howard, Esq., Cultivator office, Boston.
Luther Tucker, Esq., and B. P. Johnson, Esq., Albany.
L. F. Allen, Esq., Black Rock.
M. B. Bateham, Esq., Columbus, Ohio.
W. T. Dennis, Esq., Richmond, Indiana, and with the subscriber.

J. M. SHERWOOD.

Auburn, N. Y., March 12, 1853. *2

Clover and Grass Seeds.

NORTHERN Herds Grass.
Western Herds Grass.
Northern and Southern Red Top.
Northern, Western and Southern Red Clover.
White Dutch Clover.
Orchard Grass.
Kentucky Blue Grass.
Fowl Meadow Grass, &c. &c.

All of the growth of 1852, and of best quality. For sale by

RUGGLES, NOURSE, MASON & CO.,
March 26, 1853. tf Over Quincy Market, Boston.

The Farmers' Library.

JUST RECEIVED, the following assortment of Agricultural and Horticultural Books, embracing the standard works of eminent American and European writers, on the Farm, the Orchard, the Garden, &c. &c.

	PRICE.
American Farm Book, by Allen,	$1,00
Farmer's Treasure, by Faulkner and Smith,	75
Dana's Muck Manual,	1,00
Prize Essay on Manures, by Dana,	25
American Muck Book, by Browne,	1,00
Lectures on Practical Agriculture, by Johnstone,	75
Elements of Scientific Agriculture, by Norton,	50
Principles of Agriculture, by Thaer,	2,50
Practical Agriculture, by Johnstone,	75
Agriculture for Schools, by Blake,	1,00
Catechism of Agriculture and Chemistry, by Johnstone and Norton,	25
American Agriculturist, by Allen,	1,00
Liebig's Complete Work on Chemistry,	1,00
Farmer's and Emigrant's Hand Book, by Marshall,	75
Home for all, by Fowler,	50
Book of the Farm, by Stephens and Skinner,	4,00
Cottage and Farm Houses, by Downing,	2,00
Downing's Country Houses,	4,00
Rural Architecture, by Allen,	1,25
Downing's Landscape Gardening and Rural Architecture,	3,50
Downing's Cottage Residences,	2,00
Fruit Garden, by Barry,	1,25
Complete Gardener and Farmer, by Fessenden,	1,25
Bridgeman's Gardener's Assistant,	2,00
Bridgeman's Kitchen Gardener's Instructor,	50
American Fruit Culturist, by Thomas,	1,00
Gardener and Complete Florist,	25
Florist's Guide, by Bridgeman,	50
New England Fruit Book, by Ives,	56
Youatt and Martin on Cattle, by Stevens,	1,25
Rose Culturist,	38
Johnson's Gardener's Dictionary, by Landreth,	1,50
Rural Economy, by Boussingault,	1,00
American Rose Culturist,	25
Bigelow's Plants of Boston,	1,25
Genera of Plants of the U. S., by Gray, 2 vols.	12,00
Gray's Botany,	2,00
Parnell's Chemistry,	1,00
New England Farmer, by Cole,	1,00
Ladies' Guide and Skilful Housewife, by Mrs. Abel,	25
Hive and Honey Bee, by Richardson,	25
Bee Keeper's Manual, by Miner,	50
Bird Fancier, by Browne, paper 25 cents,	50
Townley on Bees,	50
American Poultry Yard, by Browne,	1,00
American Poulterers' Companion, by Bement,	1,00
American Fowl Breeder, by Moore,	25
American Herd Book, by Allen,	3,00
American Shepherd, by Morrill,	1,00
Domestic Animals, by Allen,	75
Diseases of Animals, by Cole,	50
Hints to Sportsmen, by Lewis,	1,25
Dadd's Anatomy and Physiology of the Horse,	1,00
Mason's Farrier and Stud Book, by Skinner,	1,25
Management of Sheep, by Canfield,	1,00
Youatt on the Pig,	60
Knowlson's Complete Cow Doctor,	25
Horse Doctor,	25
Guenon's Treatise on Milch Cows,	38
Treatise on Hot Houses, by Leuchars,	1,00
Allen on the Grape,	1,00
Schenck's Text Book,	50
Breck's Book of Flowers,	75
Downing's Fruit and Fruit Trees.	1,50

For sale at the Publishers' prices by RUGGLES, NOURSE MASON & Co., Quincy Hall, (*over the Market,*) Boston.

Jan. 1, 1853. tf

A. L. Bingham's Third Annual Sheep Shearing Festival.

THE undersigned gives notice that he will hold his Third Annual Sheep Shearing Festival, at the well known resort of James K. Hyde, in Sudbury, Rutland County, Vermont, on the first and second days of June next, commencing at ten o'clock A. M. He proposes to shear publicly, from fifty to one hundred French Merino Ewes, with a view to enable all interested in this branch of production, to see and judge for themselves of the weight and value of these sheep as compared with others. All wool growers, and manufacturers are respectfully invited to attend. Several very superior Bucks and Ewes, of the best French importations and stock, will be on exhibition and for sale. A number of gentlemen largely interested in the celebrated Black Hawk and other Morgan Horses, have signified their intention to avail themselves of the occasion to exhibit a splendid collection of the best horses in Vermont.

A. L. BINGHAM.

West Cornwall, Vt., April 1, 1853.

Walnut Grove Nursery.

The subscribers would respectfully inform their friends and the public, that they have on hand an unusually large stock of Apple, Pear, Plum, Cherry, Peach, and other Trees.

Also, Quinces, Currants, Raspberries, Grapevines, &c., &c.

Ornamental Trees, and Shrubs, Buckthorn Plants, &c. &c.

Lot of Seedling Horse Chestnut, two years old.

Lot of European Sycamore, two years old.

Good plants of the new and improved high bush Blackberry, the fruit of which is of enormous size.

Fine Apple Trees, three to five years' growth from bud, seven to nine feet high, $25 per hundred.

Also, a fine lot of Norway Spruce, good size.

We devote ourselves solely to the raising of trees; they receive our strict personal attention; we are therefore able to warrant every article true to name.

Those who intend purchasing large quantities of Apple Trees are respectfully invited to call before purchasing, and examine our stock, as it is large, and doubtless unsurpassed by any in the vicinity.

Trees delivered in Boston free of expense, packed if desired.

Catalogues sent to *post-paid* applicants. All orders thankfully received and promptly executed.

JAMES HYDE & SON.

Newton Centre, Mass., March 26, 1853. 8w*3

AGRICULTURAL

WAREHOUSE AND SEED STORE,

QUINCY HALL, OVER THE MARKET, BOSTON.

THE Proprietors having recently enlarged their Warehouse, and increased their works at Worcester, would respectfully invite the attention of Planters and Dealers in AGRICULTURAL & HORTICULTURAL IMPLEMENTS, GARDEN and FIELD SEEDS, &c., to their stock, comprising the largest and best assortment to be found in the United States, which are offered at low prices.

Of PLOUGHS—we have the greatest variety of kinds and sizes.

Improved Sod Ploughs, for flat furrows—Improved Scotch Ploughs for lapped furrows—Improved Stubble Ploughs, which are especially adapted to deep tillage, or varying from 6 to 12 inches in depth.

Self-sharpening, Hill Side, Sub-soil, Double Mould, Corn, Cotton and Rice Ploughs.

Cylinder Hay Cutters, Smith's Patent Lever Gate, and others. Patent Corn Shellers, with and without Separators. Seed Sowers, of various sizes and prices. Batchelder's patent Corn Planter, improved. Fanning Mills of various sizes, Horse Powers, Threshing Machines, thermometer Churns, Robbins' patent Centrifugal Churn, Cylinder Churn, Dash Churn, Corn Planters, together with almost every article wanted on the Plantation, Farm or Garden.

Illustrated Catalogues sent gratis on application, post paid.

RUGGLES, NOURSE, MASON & CO.

Boston and Worcester, Mass., Jan. 1, 1853 tf

Morgan Stock Horse for Sale.

For sale by the subscriber, a Morgan Colt, 4 years old last May, weight 1125 lbs., the best model of his Sire (the Green Mountain Morgan owned by Hale) that can be found in New England; his color and action, his temper, and gait, are like the old horse and he is reputed to be the best roadster of the whole race of Morgans.

C. W. BELLOWS.

Pepperell, Mass., March 12, 1853. On Nashua and Worcester Railroad. *tf March 12.

Farm to be Let.

That well known farm in the southerly part of West Cambridge, called the "FERRY FARM." It consists of about 100 acres, divided into orcharding, tillage and pasture, and is at present cultivated as a milk and fruit farm. The buildings, &c., are sufficient and in good order.

For terms and particulars, please apply to WM. MAPLESDEN, on the premises.

Feb. 26. tf

Super-Phosphate of Lime,

IN bags and barrels, made by C B DEBURG, a warranted pure and genuine article, with full directions for use. For sale by GEO. DAVENPORT, 5 Commercial, corner of Chatham St., Boston, agent for the manufacturer.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.

March 26, 1853. tf

CONTENTS OF THIS NUMBER.

Calendar for May ..... Page 201
Plowing 202
Millet 203
Welcome Spring—Bone Wens—Special Manures 204
How can Chemistry benefit the Farmer? 205
Hedges 206
The Hive and Honey Bee—Posts and Stakes 208
More about Plowing 210
Hints for the Husbandman—Suggestions in Composting 211
Choked Cattle 212
Cost of Fences—Benefits of Agricultural Papers 213
Indian Corn—Oyster Shell Lime 214
Field Seeds—Address by Wm S. King, Esq 215
New Brunswick 216
Cultivation of Fruit 217
Tenth Legislative Agricultural Meeting 217
Guano—Agricultural Education 219
Cloudy Season—Look at your Bees 220
Birds of New England 221
Remarks on Budding and Grafting 222
Manures again 223
Grafting on the Thorn—Question for the Curious 224
Live Fences—Maryland Farming 226
Transplanting 227
The Value of Sulphate of Zinc to the Farmer 228
Farm Accounts—Analyses of Clam and Oyster Shells 229
Eleventh Legislative Agricultural Meeting 230
Plastered Houses—Observations on Spring Work 232
Ornamental and Shade Trees—More about Potatoes 235
Twelfth Legislative Agricultural Meeting 236
Shoveldom 238
Wealth of the United States 239
Plaster—Taking Honey 240
Model Farms, &c 241
How to Raise Fruit every Year 242
The Gooseberry—What shall I do? 243
Concord Farmers' Club—A Shower of Mud 244
Good Effects of Gardening—To Correspondents 245
Equivalent Value of different Kinds of Food 245
Ladies' Department 246

ILLUSTRATIONS.

Emery's Reaping and Mowing Machine combined 206, 207
Guenon on Milch Cows 209
Beurre de Anjou Pear 225
Brush Seed Sower 241

Parker & White,

8 & 10 *Gerrish Block, Blackstone Street,*

ARE now ready to serve their Spring customers with Agricultural Tools and Seeds of every description. They have enlarged their establishment and are prepared to show a larger and better assortment of Goods than ever before.

The following are some of their leading articles.

1000 Martin's celebrated Green Sward, Stubble, Horse and Hill side Plows.

500 other manufactures, all sizes and varieties.

100 Michigan Plows.

300 Improved Cultivators.

Geddes' and other kind of Harrows.

Improved Seed Sowers.

Churns, Wheelbarrows, Ox-yokes, Grindstones, Improved Grindstone Hanging, by which any farmer can hang his own grindstone.

700 doz. Tuttle's improved concave cast steel Hoes.

200 doz. Graves & Hatch's improved socket concave cast steel Hoes.

Also, Plimpton's, Tower's, Nason's, Clarke's and other kinds.

100 doz. Partridge's, 4, and 6 prong cast steel Manure Forks; with every variety of other manufactures.

650 doz. Ames's, Carr's, Stone's and White's cast steel Shovels; with every kind of garden tools, Rakes, Spades, Trowels, Forks, Hoes, &c., &c.

Also, Fruit and Ornamental Trees, Grass, Field, Garden and Flower Seeds. All at low prices, wholesale and retail.

PARKER & WHITE,
8 & 10 Gerrish Block, Blackstone St., Boston.

April 9, 1853

Grafting Wax,

A FIRST-RATE ARTICLE, made by an experienced Fruit Grower, for sale by

RUGGLES, NOURSE, MASON & CO.,
March 26, 1853. tf Over Quincy Market, Boston.

NEW ENGLAND FARMER

Is published on the first of every month, by JOHN RAYNOLDS and JOEL NOURSE, at Quincy Hall, South Market St., Boston

SIMON BROWN, Editor.

FREDERICK HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

☞ Terms, $1,00 per annum in advance.

☞ All subscriptions to commence with the volume, Jan. 1.

The FARMER, is devoted *exclusively* to Agriculture, Horticulture, and their kindred Arts and Sciences; making a neat volume of 576 octavo pages, embellished with numerous engravings. It may be elegantly bound in muslin, embossed and gilt, at 25 cts. a volume, if left at the office of publication.

☞ Also published at the same office every Saturday, on a large handsome folio sheet, the

NEW ENGLAND FARMER, (WEEKLY,)

An Independent Agricultural Family Newspaper.

The News and Miscellaneous departments under the charge of WILLIAM SIMONDS, will include a full and careful report of the news of the Markets, and the news of the week, such as Domestic, Foreign and Marine Intelligence, Congressional and Legislative proceedings, Temperance and Religious Intelligence, and a general variety of Literary and Miscellaneous matter, adapted to family reading, comprising more useful and valuable reading matter than any other Agricultural Newspaper published in New England. Everything of a hurtful or even doubtful tendency will be carefully excluded from its columns.

☞ Terms $2,00 per annum in advance.

The monthly contains nearly the same matter as the Agricultural department of the weekly.

☞ Postmasters and others, who will forward four new subscribers on the above named terms, for either publication, shall receive a fifth copy gratis for one year.

☞ All orders and letters should be addressed, *post-paid*,

RAYNOLDS & NOURSE,
QUINCY HALL, SOUTH MARKET STREET, BOSTON.

☞ POSTAGE.—The postage on the New England Farmer monthly, is 1½ cents per quarter, or 6 cents per year, to any part of the United States, to be paid in advance at the office where the same is received.

Devonshire Stock.

For sale, a pure blood North Devon Bull. Also, two Spring Bull Calves, all as highly as can be found in this country. Inquire at this office, postage paid.

April 23, 1853. 6w2*

Garden Seeds.

WE respectfully solicit the attention of purchasers of GARDEN SEEDS to our extensive stock, which we offer for sale. We have all the sorts of Vegetable Seeds that have proved worthy of cultivation; also, Grain, Grass and Flower Seeds. All the varieties are raised and selected expressly for our trade, and we do with confidence recommend them to all who desire to procure seeds that will prove true to their names.

☞ Catalogues gratis, on application.

RUGGLES, NOURSE, MASON & CO.,
Jan. 1. Over Quincy Market, Boston.

Houghton's Seedling Gooseberry Bushes.

FROM one to five thousand of the above-named Bushes, well rooted, for sale on the premises of BENJAMIN C. MATTENLY, Chatham Street, Lynn, at prices to suit,—from four to twenty dollars per hundred. Persons desirous of obtaining some of these much-sought-for bushes, will now have an opportunity.

☞ Orders sent to any part of the United States will be immediately attended to. Address B. C. MATTENLY,
Chatham Street, Lynn, Mass.

April 2, 1853. 5w

Seed Potatoes,

EARLY AND LATE SORTS, for sale by

RUGGLES, NOURSE, MASON & CO.,
March 26, 1853. tf Over Quincy Market, Boston.